



Executive Function Curriculum

By Elizabeth Nanis

A Thesis Submitted in Partial Fulfillment of
the Requirement for the Degree

Master of Education

Educational Program Design/Educational Technology

April 29, 2019

Abstract

Over the past few years, Patton Middle School has seen a need to develop an executive function curriculum to address the needs of students identified with learning disabilities and attention deficits. This thesis examines research on executive function and curriculum development, and applies that research in creating a curriculum designed for middle schoolers in an executive function support class. I researched what executive function is and the effects of weak executive function. I also researched how to develop a curriculum using Understanding by Design. Current research indicates that the core executive skills include working memory, flexible thinking and inhibitory control. Students with weaknesses in these area have difficulty initiating tasks, completing tasks, using an organizational system and maintaining friendships. Research indicates that an intentional curriculum designed to teach students these skills is beneficial to success in school and at home. The units designed in this curriculum focus on organization, planning and prioritizing of assignments, task initiation and working memory as these skills are areas of need as sixth graders transition from elementary school to middle school.

Table of Contents

Abstract.....	2
Chapter 1, Introduction.....	4
Significance.....	6
Chapter 2, Literature Review.....	10
Executive Function: Defined and Explained.....	10
Effects of Executive Function Weaknesses.....	16
Teaching Executive Functioning Skills	20
Understanding By Design.....	23
Creating an EF Curriculum for Middle School.....	26
Chapter 3, Curriculum Overview.....	34
Chapter 4, Executive Function Curriculum.....	42
Unit 1 - Organization.....	42
Unit 2 - Planning and Prioritizing.....	49
Unit 3 - Task Initiation.....	56
Unit 4 - Working Memory.....	63
Appendices.....	69
References.....	84
Curriculum Vitae.....	89

Executive Function Curriculum

Chapter 1: Introduction, Problem Statement and Significance

Introduction. My Curriculum Capstone Project stems from a very real need in my school. Patton Middle School is located in Unionville, Pennsylvania. It is a school of roughly 1,000 students in 6th through 8th grade in an upper middle class suburb of Philadelphia and Wilmington, Delaware. 4.5 percent of the population is economically disadvantaged, and 14.3 percent are identified as special education, 11 percent are gifted and there is a 0 percent drop out rate. It is rumored that families are drawn to the district because of the strong special education program. We have active parent involvement with high expectations.

I have taught special education in the school district for the bulk of my career and have been teaching an organizational support class to sixth graders for the last eight years or so. Sixth grade can be a challenging transition for many of my students, especially those with attention deficit or learning disabilities because of increased expectations for independence. I have seen a need to develop a curriculum for the class that focuses on organization of time and materials, planning and prioritizing of assignments, task initiation and working memory strategies. The curriculum needs to be flexible to meet the needs of the students as well as engaging because it is not a “graded” course. It’s important to me that the course is linked to the regular education curriculum so that the students see the practical application of the lessons.

Problem Statement. I have been teaching special education in this district for thirty years. We have always provided a support class for students with IEPs. Historically we have supported students with organization, homework and work completion. The learning support teachers at all

grade levels teach this support class. We call it “Itinerant Support,” aka IT. Over the past several years, this course has begun to change and develop. Through the evaluation/reevaluation process, more and more of the students we work with in IT are identified with executive functioning weaknesses through the Behavior Rating Inventory of Executive Function (BRIEF) which is a standardized measure of executive function skills in school and in the home. Teachers and parents complete a questionnaire that contains eighty five questions and breaks executive skills into eight categories: Inhibit, Shift, Emotional Control, Initiate, Working Memory, Plan/Organize, Organization of Materials, and Monitor. The BRIEF is a reliable assessment measure, but we also use informal parent/teacher/student checklists to assess executive skills. Those of us teaching IT are understanding the importance of executive functioning skills and how they impact students identified as attention deficit and learning disabled. The middle school teachers have identified the need to provide direct instruction on executive functioning skills. Parents are asking more about EF skills, and the district has advertised the course as executive functioning skills class.

This poses a problem. The course is advertised as an executive function course, yet we have no curriculum. There has not been a great deal of teacher training on what executive function is and how to teach it. We do not have a scope and sequence that addresses the instruction of executive functioning skills. What we do have at this point is a variety of activities to teach EF skills and strategies to support EF. The first question I ask is, is it beneficial to have a continuity of curriculum addressing executive functioning in 6th grade? What EF skills are most crucial to students as they transition from elementary school to middle school? We have the

Itinerant Support class; but because we do not have a scope and sequence, the course is not nearly as beneficial as it good be.

Overall Purpose of the Curriculum

The overall purpose of this project is to create a 6th grade curriculum that addresses a scope and sequence of executive skill instruction through the middle school IT Support class. Within the curriculum, there needs to be flexibility. Executive skills need to be taught as well as practiced in conjunction with content area classes. The evidence that curriculum is needed was evidenced at “Back to School Night” when parents asked, “What do you teach in IT?” What do we teach? I feel like I’ve done a nice job of patching together activities and lessons to support the students executive functioning weaknesses and needs, but it’s been very piecemeal. The middle school needs a solid, tangible curriculum.

Significance

Significance in the Field. We read it all the time. It’s all over Facebook, Twitter, mom blogs, teacher blogs - students’ executive functioning skills are lacking. Is it because of increased technology use? Is it because children are not outside playing without total adult supervision? I’m not sure the answer, but there is a clear connection between students with learning disabilities and attention deficit and weak executive skills. In researching curriculum guides in Pennsylvania’s public schools, I found it was easy to access content area curriculum but found no EF course curriculums. Several schools appear to have organization and study skills courses, but organization and study skills are a subset of executive function. In looking to see what other school districts do to address executive function, a team from my district contacted other districts in southeast Pennsylvania. The response was generally, “Let us know if you find something!”

My Capstone professor, Dr. Sarah Eckert, happened to have a personal connection with the Woodlynde School in Strafford, Pennsylvania that provides a study skills course with a major focus on metacognition. She shared the scope of sequence of the course offered at Woodlynde, a private school for students with learning differences. It supported me in designing my curriculum, but I found nothing of the kind in the public schools in the area.

Not only is there a gap in executive function instruction in public schools, there is a gap in higher education teacher training programs. Last spring I wanted to learn more about teaching EF skills and explored graduate classes. University of the Arts does not have a course. I expanded my search, West Chester University, Temple, Villanova, Penn, Penn State. No graduate classes offered. I checked online universities; no courses offered. There are a few companies that provide training, but I could not find a graduate course. Finally I stumbled across Landmark College which is a school for students with learning disabilities. They offer a study skills and executive function course in conjunction with Southern New Hampshire University through their Dyslexia Studies and Language Based Learning Disabilities Master's program. I took the online introductory course on research based strategies to improve executive function through study skills. The course also emphasized the Landmark College teaching principals: provide structured opportunities for students to achieve success, use multiple instructional modalities, create skill-based micro unit tasks, ensure student skill automatization through practice and review, provide models, and include the student in the learning process. The course whet my appetite with the desire to learn more about EF, and I began to get a clearer picture of how to teach executive skills in my IT class. I felt lucky to have found the course, but it's clear to me there is a gap in executive function curriculum for both students and teachers.

Personal Significance. This curriculum plan is of personal significance because it is something that has been gnawing at me and, frankly, has left me feeling professionally embarrassed the past several years. Parents see the importance of executive function and know their children are weak in this area. They see the repercussions at home. Try to get a child with poor executive functioning skills out the door in the morning, to soccer practice, and homework completed at a decent time. It's tough! When parents probe me for details and support, I feel like a fraud. I tell the parents that we teach and support EF skills. We do, but certainly not to the extent and with the intention that we could. It's important to me that I create a curriculum that is flexible, user friendly, supports students within their regular education classroom and will ultimately provide students with the skills needed to be successful in school and life.

Terms and Definitions.

- Attention Deficit Disorder is abbreviated as ADD and Attention Deficit Hyperactive Disorder is abbreviated as ADHD. ADHD is behavior condition that affects 11% of school age children. Children identified with ADHD have age inappropriate levels of attention, impulsivity and hyperactivity. ADD is an attention deficit without the hyperactive component. Individuals with ADHD can be very bright and ultimately successful in life, yet may experience serious difficulties in school and later in life if not addressed (CHADD, 2019).
- Executive Skills are the skills related to the mental processes that help us to plan, focus attention, remember instructions, and juggle multiple tasks successfully and Executive Function is how these skills work together so that we can function in school and in the world. They are often seen in literature as interchangeable.

Executive function are essential for learning and development. These skills help individuals make positive choices for themselves and those around them. The three primary executive functions are working memory, mental flexibility, and self control. People are not born with executive function skills, but they develop over time. Conditions such as ADHD can affect the development of Executive Function as does environmental factors such as stress or neglect. (Center for Developing Child, 2018)

- Executive Function Issues and Executive Function weaknesses are used interchangeably in text. These terms refer to executive skills that are not developing at the same rate as those of their peers. Executive Dysfunction (EDF) refers to an individual who has an identified weakness in executive function.

Chapter 2: Literature Review

Purpose

This literature review investigates the research on what executive function is, and the role it plays in the educational process of middle school students. It explores the implications of poor executive skills and will determine if there is a need for an executive function curriculum in the middle school setting for students identified with a specific learning disability and/or an attention deficit disorder. The literature review will also research how to best go about designing an executive function curriculum.

Executive Function: Defined and Explained

Executive function [EF] skills are the skills needed in order to plan, focus attention, remember instructions, and juggle multiple tasks (Executive function and self regulation, 2018). According to Peg Dawson and Richard Guare (2017), executive skills include Planning, Organization, Time management, Working Memory and Metacognition (Dawson & Guare, p.1). Executive skills affect students' ability to organize, regulate emotions and manage learning. In other words, executive function can be described as "Getting your act together" (Meltzer, Pollica, Barzillai & 2007, p. 24). There is clear consensus among researchers that there is a relationship between Executive Function and ADD/ADHD and other learning disabilities. Researchers disagree, however, on the nature of that relationship: some believe that weaknesses in executive function, often referred to as Executive Dysfunction, is the cause of a learning disability while others see it as a symptom of a larger problem.

Although terms such as planning, organization, study skills and self monitoring go back forty years in learning disability and special education literature, the term Executive Function is a fairly new concept. Before the 1980s, the term “attention” was primarily used when discussing what we now understand to be ADD and ADHD related behaviors. “Attention” referred to the symptoms of sustained attention, impulse control, and hyperactivity (Barkley, 2015). The broader term “executive” was first used by Karl Pribram in 1973 when first referring to function of the prefrontal cortex (Watson, Gable & Morin, 2016). The term executive function refers to attention and impulse control as well as other skills such as working memory, organization, and self-monitoring to name a few. The terms Executive Function and Executive Dysfunction (EDF) were introduced in the 1980s when the brain, brain injuries, ADD and ADHD were studied through Magnetic Resonance Imaging (MRI). Dawson and Guare explain that the term Executive Function stems from a medical model because it is tied directly to the frontal lobe of the brain. Executive skills are affected by not only ADD, but are also affected by a brain injury to the frontal lobe (pg. 5) Today we understand ADHD as a specific deficit in one or more areas of executive function (Barkley, 2015). Currently there are at least thirty different definitions of EF (Watson, Gable & Morin, 2016). A small sampling define executive skills as:

- Skills that allow us to organize our behavior over time and override immediate demands in favor of long term goals.” (Dawson & Guare, 2017)
- Goal directed problem solving and goal directed persistence.” (Barkley, 2010)
- Skills that allow kids to manage their thoughts, actions and emotions in order to get things done. They also enable kids to plan, manage time, and organize.” (The Understood Team, 2018)

Although there are too many definitions to list, but all tend to use the term “Executive” as an umbrella that encompasses skills necessary to learn efficiently and manage obligations in school and in life tasks. (Watson, Gable & Morin, 2016).

For the purpose of education and curriculum development, we use the term EF rather than the medical diagnosis of ADD/ADHD. Attention Deficit focuses on behaviors such as being in constant motion or easily distracted (Mayo Clinic); whereas, the term Executive Function focuses skills such as time awareness or planning and prioritizing which can be taught and remediated in a school setting. Aside from ADD/ADHD, EF weaknesses are common in students with language based learning disabilities and are more prevalent in students with a conduct disorder, depression, OCD and schizophrenia (Diamond 2013).

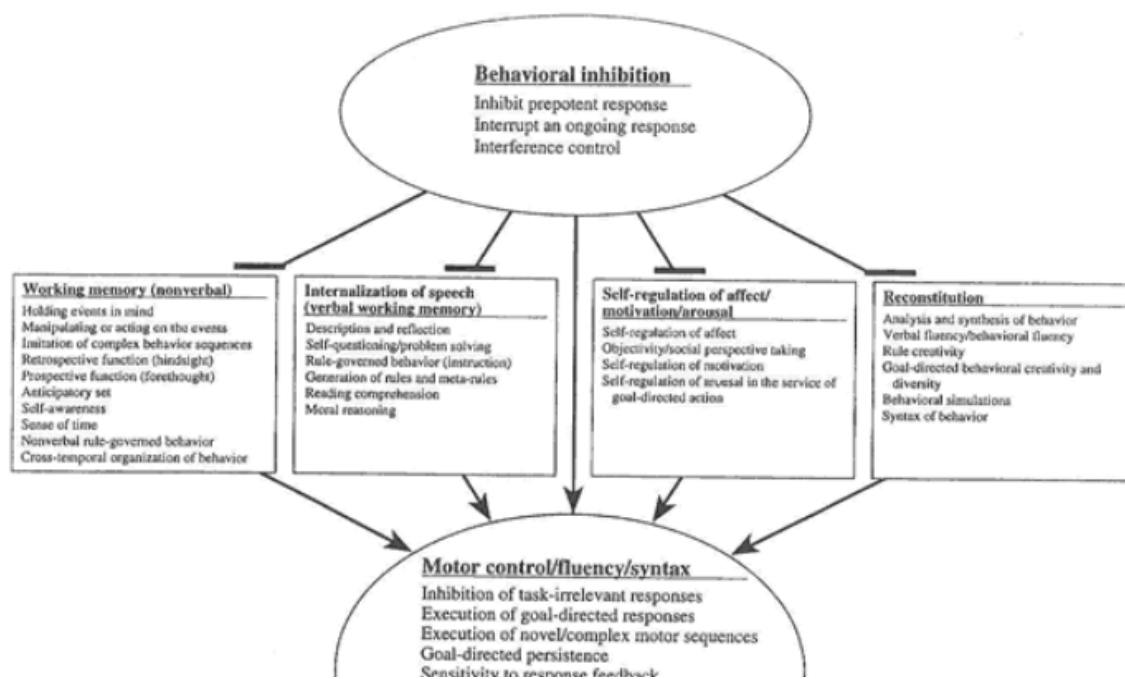
Models of Executive Function

People are not born with executive function skills. They develop over time, much like the development of language. EF skills begin to develop in infancy and continue on through young adulthood. The bulk of EF skills are controlled in the prefrontal lobe, yet that is one of the last areas of the brain to develop. An infant brain weighs between ten and twelve ounces and grows to three pounds. But, the brain simply does not get bigger; there are complicated connections developing and strengthening in the brain. The “white matter” of the brain connects regions of the brain so that they can communicate. The “gray matter” of the brain is made up of neurons and synapses. The gray matter increases through rapid growth and then goes through a “pruning process” that “allows the child to consolidate skills, and the gray matter connections that are not needed or used drop away.” (Dawson & Guare, p. 3). There are two significant growth periods. The first is in early childhood and the second is around age 11 or 12. This second growth period

corresponds with the time children generally transition from an elementary setting to a middle school setting. This growth during adolescence is important because it prepares the youngster for the advanced executive functioning skills that will be required to become independent. For students who struggle with executive function, direct instruction in EF could be the key to their success in becoming independent learners.

Russell Barkley, a professor of psychiatry at the Medical University of South Carolina and researcher in the field of executive function and Attention Deficit Disorder (ADD), has a model of EF that begins with Behavior Inhibition as the first executive function to develop. Behavior inhibition starts as early as five months in very rudimentary ways. As seen in Figure 1, the next two skills, Non-Verbal Memory and Internalization of Speech, begin to develop in infancy and continue to develop over time. The fourth skill in Barkley's model is Self Regulation of affect, motivation and arousal. This is the ability to block out distractors in pursuit of a goal - a skill required by most all students. The final EF skill to develop is the Analysis and Synthesis of Behavior. This doesn't develop until late adolescents in a typical student; yet, we teachers often expect students to have this skill in middle school (Barkley, 2010; Dawson & Guare, p.1).

Figure 1. Russell Barkley's EF design. (Barkley, 2015)



Another model of EF is outlined by Thomas Brown (2008) of Yale University in *Executive: Describing 6 Aspects of a Complex Syndrome*. Brown studies the connection between executive function weakness and Attention Deficit Disorder. As seen in Figure 2, he groups EF into 6 categories: Activation, Focus, Effort, Emotion, Energy, and Action. Each of these categories include a cluster. For example, “activation” consists of organizing, prioritizing and activating for tasks. “Action” includes monitoring and self regulating action. Brown sees such a strong correlation between ADD and Executive Dysfunction that he classifies ADD as a cluster of symptoms or a “syndrome.” He sees it a syndrome because the clusters of symptoms appear together, and when one of the areas of executive function sees significant improvement through medication, there is most often improvement in one of the other executive function clusters. They “respond together” in treatment (Brown, 2008). If an individual is effectively treated with medication for ADHD, improvement is evident in all areas of executive functions (Brown, 2006). Brown considers ADHD as a problem with the chemistry of the brain’s executive management system. Therefore, the primary difference between Barkley and Brown’s theory of EF is whether ADD is a manifestation of executive function impairment or executive function weakness is one symptom of ADD ([Brown, 2006](#)).

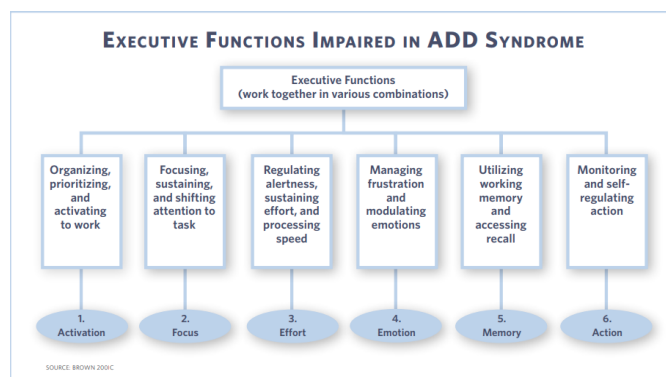


Figure 2. Thomas Brown’s Executive Function Model

In 2013 Lynn Meltzer of the Harvard Graduate School of Education, outlined six areas of executive function - goal setting, cognitive flexibility/shifting, organizing, prioritizing, accessing working memory, and self-monitoring. Meltzer's model focuses on understanding, assessing, and teaching these critical executive skills. She links these skills directly to mastering the academic and technological skills necessary for the 21st century classroom. Because of the strong connection between EF skills and success in today's classrooms, Meltzer stresses the need for an executive function curriculum. EF skills need to be taught explicitly and should be embedded into the curriculum so that students are able to practice the skills. Fostering metacognitive awareness, strategy instruction along with peer mentoring and coaching is the basis of Meltzer's model (Meltzer, 2013). It should be noted that Meltzer is also the director of an online executive function curriculum entitled SMARTS: Strategies, Motivation, Awareness, Resilience, Talent, Success - which will be investigated as a possible source when writing curriculum (Meltzer, 2013).

3 Models of Executive Function

Russell Barkley	Thomas Brown	Lynne Meltzer
Behavior Inhibition	Activation: Organizing, prioritizing, and activating to work	Goal Setting
Non-Verbal Memory	Focus: Focusing, sustaining, and shifting attention to task	Cognitive Flexibility/ shifting
Internalization of Speech	Effort: Regulating alertness, sustaining effort, and processing speed	Prioritizing
Self Regulation of Affect/Motivation/Arousal	Emotion: Managing frustration and modulating emotions	Accessing working memory
Analysis and Synthesis of Behavior (Plan and Problem Solve)	Energy: Utilizing working memory and accessing recall	Self Monitoring
	Action: Monitoring and self regulating action	

Figure 3. Comparison of the Barkley, Brown and Meltzer's models of Executive Function

In writing a middle school EF curriculum, one must consider which model to focus on. Barkley's model is based on the medical diagnosis of ADD/ADHD. Brown's model is inclusive and lends itself to the classroom, yet Meltzer's model focuses on intentional strategies for teaching EF skills in the school setting. In comparing the models on EF in Figure 3, a more realistic possibility is to adopt elements from all three models to meet the needs of the students.

Effects of Executive Function Weaknesses

Why do students identified as having a specific learning disability or ADHD struggle in school? One of the main reasons for academic struggle among these students is that they are more likely than the general population to have EDF, though they present in different ways.

Students with a language based learning disability have impaired language skills that impede their ability to manage materials and time, have weak comprehension skills and have difficulty managing information and ideas. This student will have additional problems with reading, writing or math (Newhall, 2008). In essence, the executive function difficulty in a student with a language based learning disability is an “output impairment” (Meltzer, 2007, p. 79). On the other hand, a student with ADD/ADHD will have difficulty with EF due to inherent challenges with focus, task initiation, organization and follow through. This individual knows what to do, it just doesn’t get done (Barkley, 2015). Notably, Jacobson, Williford, and Pianta’s (2011) research indicates that boys are more likely to have weaker EF skills than girls, and students from a lower socio-economic background were reported as have lower EF skills.

EF weakness can lead to a difficult elementary-to-middle school transition. EF weaknesses may not be as noticeable in elementary school as they are in secondary school because of supports embedded in elementary classrooms. These classrooms are more likely to be highly structured in where materials are kept, where students hand in homework, how to organize desk space and end of the day routines to ensure necessary materials get home in the backpack (Dawson & Guare, 2017). When youngsters go to middle school they typically have more teachers, a locker, more independence and higher expectations. Like academic skills, executive skills build on each other. In elementary school, assignments are scaffolded to teach executive skills. In upper grades, instruction shifts from teaching strategies to teaching content (Newhall, 2008, p. 5). It’s at this transition that EF weaknesses become more apparent.

In 2018 The Understood Team pinpointed working memory, flexible thinking, and inhibitory control as specific areas of difficulty as students transition from elementary school to

middle school. Because of these weaknesses in core EF areas, students often have difficulty initiating tasks, completing tasks, using an organizational system and maintaining friendships. If a student doesn't get the skill instruction to manage these expectations, he/she students can become frustrated which will affect how they feel about school overall. This frustration can often look like lack of motivation or laziness, so some students would rather be seen as defiant rather than stupid (Newhall, 2008).

Jacobson, Williford and Pianta (2011) also looked at EF and adjustment to middle school. They studied children over time and compared preschoolers' executive skills and their subsequent success in middle school. They concluded that early measures of EF skills are more indicative of middle school academic success than early cognitive ability measures such as the WISC-R IQ test. In other words, small children who had behavior and social difficulties in preschool were more likely to struggle academically and socially in middle school even if they scored higher on IQ testing than their peer without EF weaknesses. On the other hand, students who exhibited the coping skills of problem solving and self control in a variety of academic and social situations, fared better during the transition times. Coping skills are executive function skills that enable a person to be successful in school (Jacobson, Williford & Pianta, 2011). Weak EF skills not only impact the middle school transition academically, they can negatively affect how a students feels about school. Students who struggle with the transition from elementary school to middle school have a lower sense of self worth and psychological distress. This may cause them to disengage from school and increase their risky behavior (Jacobson, Williford & Pianta, 2011).

Not only are EF skills essential in the school setting, they play an important role in life beyond school. Barkley and Murphy studied adults with ADHD and learned that with poor executive skills, individuals were more likely to have more job turnover than adults with good EF, a weaker work quality, and weaker interpersonal difficulties. The researchers used both EF tests and self rating scales to assess occupational problems in daily life activities. The self rating scales of daily activities seem to have the highest predictive value when looking at the implications of EF weaknesses in adulthood (Barkley & Murphy, 2010). Adults with weak executive functioning skills report that their lives are negatively impacted.

Adele Diamond's 2013 research indicates that executive function weaknesses that extend into adulthood can affect an individual's social, emotional and physical health. If you have good executive skills, you are more likely to enjoy a better quality of life (Diamond, 2013). Interestingly, adults with good EF tend to have happier relationships. If a person has poor EF, he/she is more difficult to getting along with, less dependable and more likely to act on impulse (Diamond, 2013). Poor EF leads to more social problems, violence, emotional outbursts and even crime. If you have poor executive skills as an adult, you're more likely to be obese and have addiction issues. And, if you have EDF and addiction issues, you are less likely to follow a treatment plan. Adults with poor EF have more difficulty finding and keeping a job (Diamond, 2013, table 1). Diamond cautions that factors other than ADHD and learning disabilities can affect executive function. Sleep deprivation, stress, sadness, loneliness and poor physical fitness can cause symptoms that appear to be EF impairment. It's very possible that it's the sleep deprivation, emotional state or poor physical health that is affecting executive function. Diamond posits that these factors lead to the deterioration of EF skills. Diamond is emphatic in saying, "A

school or corporation that ignores students' or employees' emotional, social, or physical needs is likely to find that those unmet needs will work against achieving performance goals" (Diamond, 2013). Through this research review, it's clear that teaching EF skills can benefit students' school careers, and support overall life skills in the process.

Teaching Executive Functioning Skills

EF skills can be improved; researchers have both demonstrated that EF skills are malleable and have developed strategies for scaffolding executive skills (Dawson & Guare, 2017). Both the Barkley and Brown models focus on the development of executive function and have determined that no one is born with executive function skills; they develop slowly over time and are hierarchical in nature. For example, in Barkley's model, an infant begins to develop behavior inhibition and continues to develop that skill through adulthood. The highest level of EF is Analysis and Synthesis of Behavior which does not develop until middle school age. This enables students to plan and problem solve. Because these skills develop into adulthood, EF skills should not be expected to be in place in middle school (Child Mind Institute, 2010). We teach language skills so that those skills develop and improve over time, but we have not consistently taught EF Skill explicitly. It's important for children and adolescents to be explicitly taught EF skills so that they develop over time. EF skills must be taught so that students can become independent in school, work and relationships.

Research out of the National Institute of Mental Health supports targeted instruction in EF. NIMH suggests that the frontal lobe may go through a "use it or lose it" process (Dawson & Guare p. 3). Youngsters must practice executive function and skills need to get increasingly complex (Diamond, 2013). This is important for teachers to understand because they play a

critical role in helping students practice EF skills within a controlled, safe environment (Dawson & Guare p. 3). The Jacobson, Williford and Pianta study on the role of EF and the transition to middle school also supported the need for targeted EF instruction for students with executive dysfunction. They determined that the instruction should include direct skill instruction, remediation and supports in the classroom (Jacobson, Williford & Pianta, 2011, Conclusion).

In 2013 Edele Diamond outlined the principles in improving executive skills in Executive Function in the Annual Reviews of Psychology.

- Students the most behind in EF skills benefit the most from intervention.
- EF training appears to transfer. Computerized training has a lower transfer rate than training in task switching, and martial arts and school curricula have a broader transfer - perhaps because they attack EF more broadly.
 - Martial arts supports EF more than a general physical education because it focuses on self control, self discipline and character development.
- EF demands need to be increased incrementally in order for gains to occur. People need to be pushed just outside their comfort zone to improve.
- Practice, practice, practice.
- Adults need to help children push the limits of their EF skills in order to see gains.

Because these strategies have been proven successful, they must be considered when building an EF curriculum (Diamond, 2013, Training and Practice Paragraph).

Clearly, EF skills can be improved, but how do we address that in the middle school setting? Explicit teaching of EF strategies includes modeling and guided practice of strategies that improves academic performance across the curriculum. Instruction should include the

management of materials and time, strategies to aid comprehension and ways to manage information and ideas (Newhall, 2008). There are numerous methods in teaching students how to achieve these skills, but they have one thing in common. Each method must be explicitly taught in a structured and sequential way. Students need to learn how to use the strategy and practice it with teacher support (Newhall, p. 51). As skills improve, the teacher gradually removes some of the scaffolding. As students begin to generalize a strategy over various learning situations, the teacher continues to provide support, so that students can learn to self monitor (Newhall, p. 11).

Arzi, Ben-Zvi and Ganiel (1985) studied the importance of sequential teaching in order to retain previously learned material. Their study looked at middle school 7th grade physical science instruction. One group of students continued to review physical science in 8th grade and the control group did not. They found that retention is improved when the concepts are taught in subsequent courses. Although the study looked at middle school science instruction, it validates the need to continued review and instruction on increasingly challenging EF skills. This has been a glaring flaw in my current EF course. With no set curriculum, the course does not have a sequential plan. An important takeaway from this study for my Capstone is that retention is greatly improved through sequential teaching, but it's not because the content is retaught over the years. The content is used over the years, and this is applicable to an EF curriculum (Arzi, Ben-Zvi & Ganiel, 1985). Skills taught in 6th grade will need to be reintroduced again in 7th and 8th grade with more complex tasks and higher expectations in much the same way math concepts are taught.

Understanding By Design

Understanding by Design, or Backward Design, is a curriculum model developed by Grant Wiggins and James McTighe. Designing curriculum using Understanding by Design (UBD) begins with setting goals and determining essential questions for a unit of study. An example of an essential question might be, “How does art shape a culture?” rather than “What is the symbolism in the novel?” An essential question sparks inquiry and critical thinking and does not provide a definitive answer. It can be explored across content areas. Only after goals and essential questions are decided do you begin to design units, create assessments and gather resources. UBD is also called backward design because it does not follow the path that has been traditionally used to design curriculum. This can make the process rather uncomfortable for many educators. Too often curriculum committees begin the planning process by choosing a textbook and adopting the publishing company’s curriculum; whereas, UBD asks essential questions about life and the world.

To help understand Backward Design, Wiggins and McTighe (2005) provide a visual of three concentric rings as seen in Figure 4. The inner circle contains the essential question and enduring understanding. Everything touches on that enduring understanding. Beyond the essential question is the information or skills that are important to know - yet not essential. The outer ring is information worth knowing- but not critical. When designing curriculum, the visual is a useful reminder that students do not need to master all the material that is presented, but it’s critical to design curriculum around the inner circle - the enduring understanding.

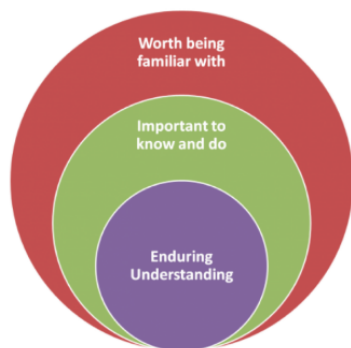


Figure 4. Wiggins & McTighe, 2005

There are three main steps in backward design for curriculum planning (McTighe & Thomas, 2003):

Step 1. Identify Desired Results: Backward Design begins by identifying Big Ideas and essential questions. “Understanding key concepts and searching for answers to provocative questions— essential questions that human beings perennially ask about the world and themselves—should be the primary goals of teaching and learning.” (McTighe & Thomas, 2003, p. 1) These essential questions are what guides the standards and content. McTighe and Thomas suggest that educators begin the process by analyzing the state standards and begin to “unpack” the “key idea” in order to develop essential questions. For example, a 7th grade standard is comparing early civilization of the Indus-River valley with the China’s Yellow River Valley. Big ideas and essential questions might be, “How does where people live influence how they live,” or “Are modern civilizations more civilized than ancient ones?” The standard is met while looking at bigger questions that are more meaningful and engaging to students.

Step 2. Analyze Multiple Sources of Data: In writing curriculum, the committee or district needs to look at a wide variety of data sources to know if the learning goals are being

met. These sources range from external tests such as state testing, local assessments, and student work. Studying data requires more than looking at one test or one data point. Much can be gleaned from performance based tasks, constructed responses and objective tests. Analyzing sources of data requires reflection on the results. How are different populations doing? What patterns are noticed over time? What is the standard - what is good enough? How do the results compare to similar schools? This information can not come from objective multiple-choice type tests. The data must be from more authentic sources such as portfolio work or in assessment opportunities where students apply and explain their learning. This step also involves writing a summary of the findings that include all the sources and pinpoint student need. This summary will guide the development of lessons and activities.

Step 3. Developing an Action Plan: The final step of backward design is to create an action plan by gathering needed resources and creating activities and lessons that facilitate the learning of essential questions. The school improvement team can create a plan to determine if the desired results are achieved. Developing an action plan is broken down to include:

A systems view. This is an important step because it slows down the knee jerk tendency to look only at standardized test results. The committee studies structures in place that can help or hinder the curriculum.

- Are standards, instruction and assessment aligned?
- What is the skill level of the staff?
- Use of resources: How does the district use funds to support improvement?
- Academic Supports and Interventions for Students: What resources are in place to support students so that all are able to success to their highest level.

- School Culture: Does the staff have high expectations for student learning?
- Leadership and policy at the school and district levels: Has the committee addressed content and standards through the lens of essential questions?
- Community Partnership: How do community stakeholders support academic goals?

Acting on Analysis. This final step involves taking the information gleaned from analyzing the data to determine how the classroom, school and district might need to be restructured to address the findings and performance problems of the school or district (McTighe & Thomas, 2003).

When designing curriculum it's also important to think about relevance for students. Will they be engaged? Does the essential question relate to their lives? A final step in backward design is to determine if the design is coherent and effective (Wiggins & McTighe, 2005). Educators and stakeholders need to analyze if the learning experiences evoked the essential learnings, provoke interest and make "excellent performance more likely." (Wiggins & McTighe, 2005).

Creating an EF Curriculum for Middle School

The need for an EF curriculum. There are critical years in the educational process that can be difficult for students. One of those critical years is 6th grade, typically the start of middle school (Meltzer, Pollica, & Barzillai p. 170). Middle school is an important transition that requires increased executive function skills. As children get older the curriculum gets more complex with tasks that require executive skills (Watson, Gable & Morin, 2016). Because of this transition, it's an important time to implement an intentional executive function curriculum for students who exhibit weaknesses in EF. Youngsters entering 6th grade go through many

changes. This is often the onset of puberty which is the start of major physiological changes. Middle school also requires more nuanced executive skills: cognitively, socially and behaviorally. The school structure changes. Students encounter more subject areas and teachers, increased class size, a perceived decrease in teacher support, a change in social networks and increased need to be independent (Jacobson, Williford & Pianta, 2011). All of these changes place a demand on all of the executive skills. Larger social networks require an increase in self-regulatory skills. Working memory plays a more important role when students have more teachers, subject areas and increased class size.

Jacobson, Williford and Pianta compared 6th graders who were in the elementary setting to 6th graders in their first year of middle school. The researchers followed children from birth through sixth grade. At age 4.5 the students were given a battery of tests to assess executive function skills. They gave follow-up assessment in first, fourth and fifth grades. In the fall of sixth grade the children were given questionnaires about their perceptions of school and their teacher. Teachers also completed a questionnaire providing information about the students' academic, social, and behavioral performance in the school setting. In teacher rating scales, students with poorer behavior regulation--a basic executive function skill--were perceived to have worse academic achievement if they attended 6th grade in an elementary setting. But, in parent rating scales, the reverse was reported. Previously it was thought that students fared better if they attended 6th grade in an elementary setting (Jacobson, Williford & Pianta, 2011). While middle school teachers reported students identified in elementary school as having weak EF skills perform better than they did in the elementary setting, it's possible that those weaknesses were showing up more at home. It should be noted that middle school teachers see students less

frequently than elementary teachers, so they may not observe behaviors as readily. Perhaps “most” students have a bumpy transition to middle school, so students with EDF tend to blend in more than they did in the elementary setting. Whether academic and/or behavior difficulties are presented at school or at home, executive function skills must be taught in the 6th grade so that all EF skills continue to improve.

It’s clear that executive skills play an important role of social and behavioral success in middle school. What about more tangible measures of academic achievement? In 2006, St Clair-Thompson and Gathercole studied scholastic achievement and compared that with the executive skills in 11 and 12 year olds in the UK. Before the study, the students had taken a national curriculum test. They were then given executive tasks that specifically looked at shifting, updating and inhibition as well as tests measuring working memory. The findings indicate that working memory correlates strongly with English (reading, writing and spelling) and math achievement. Executive function associated with inhibition correlates strongly with English, math and science. It was noted that if an 11 or 12 year old has a poor working memory, he/she was found to make errors in learning, recalling and carrying out instructions, organizing tasks, writing and using mental math. Clair-Thompson and Gathercole conclude that EF and working memory play an important role in acquiring knowledge which is an essential part of middle school (St Clair-Thompson & Gathercole, 2014).

Executive Function Curriculum. 21st Century students require executive skills in order to complete complex tasks of organizing, note taking, studying, planning long term assignments and writing, to name of few. In order to do this efficiently, students must have the ability to plan their time, organize and prioritize information, separate main idea from detail, monitor their

progress and reflect on their work (Meltzer, Pollica & Barzillai, 2007, p. 182). For students who struggle with these skills, the most effective way to address them is through strategy instruction. Strategy instruction focuses on helping students become metacognitive learners. It teaches them how to learn. They begin to learn their own strengths and weaknesses and the importance of executive skills on success. Research compiled by Meltzer, Pollica, and Barzillai in 2007 indicates that:

- Strategy instruction should be directly linked to the curriculum.
- Metacognitive strategies should be taught explicitly.
- Strategies should be taught in a structured, systematic way using scaffolding and modeling and providing time for practice.
- Students' motivation and self-understanding should be addressed to ensure generalized use of strategies.

It's also important to note that a middle school executive function curriculum should not be disconnected with the regular education curriculum. Poor EF skills affect tasks that involve reading comprehension, written expression, and note taking because they require self-regulation, planning, organizing, shifting strategies, and metacognition (Watson, Gable & Morin, 2016). Strategies and metacognition must be taught explicitly within the context of the curriculum and be relevant. Skills taught in isolation have little impact. Students must have multiple opportunities to practice so that they can become independent in using the skills. Metacognitive skills can help students monitor the effectiveness of the learned strategies. What works and what doesn't work? (Meltzer, Pollica & Barzillai, p. 168) Deliberate EF curriculum can address the

following skills to improve performance, but to be truly effective, the skills also need to be implemented throughout the curriculum:

Self-regulation. A powerful tool for teaching self regulation is developing “internalization of speech.” If you listen to small children, they often do this through play. They talk through their processes. Children with poor EF skills do not do this well. A common self talk intervention that can be taught includes teaching children to ask themselves the following questions:

- What is the problem?
- What is my plan?
- Am I following my plan?
- How did I do?

This is an important skill because it can be used in the classroom. What am I suppose to solve for in math? It can also be used in social situations. How can I find someone to sit with at lunch?

There are several models of teaching self talk, but they generally begin with the problem and end with a metacognitive process (Dawson & Guare, p. 64).

Planning. Planning is essential to success in the middle school. It is important in completing daily and long term assignments. Planning instruction should include:

- End of day planning checklists: Are assignments turned in? Did I return borrowed materials? Do I have materials to go home - books, binder, folders, planner, notices for parents, gym clothes, etc?
- Homework Planner: A homework planner can include the subject, list of materials needed, and an estimate of how long the assignment should take.

- Study Plan: This strategy includes back mapping a plan to prepare for an upcoming test. A strategy might include using a planner to plot a study plan for the four days preceding the test. For example, on the Monday block in the planner the student might write “Review vocab through Quizlet.” Tuesday the student might write, “Review study guide with Mom.”
- Graphic organizers for written work: Organizers can be scaffolded according to need. It can include spots for a topic sentence, supporting details and conclusions.
- Long term project planning: Project planning varies according to the assignment but can include things like possible topics, necessary materials, tasks, due dates and completion checks (Dawson & Guare, p. 64).

Organizing. Students need to be taught to create organization systems. Newhall (2008) suggests students learn specific strategies to organize backpacks, lockers, and papers. She suggests the use of a binder organization system including:

- a big three-ring binder
- dividers
- college-ruled, three-hole-punched notebook paper
- planner and pencil pocket in binder
- an accordion notebook with twelve to sixteen pockets (the kind lawyers and accountants use)
 - ◆ This can be used to store work that is no longer needed. Teach students to go through their binders on a regular basis to file completed work. For example, after a chapter test, students should file papers that might be needed to study for a unit

test.

(Newhall, chapter 3)

Shifting / flexibility strategies. An important executive skill is flexible thinking.

Prompting for shifting / flexibility would include questions such as, “What can you do if you get stuck when doing your math homework?” An EF curriculum could include instruction on attacking open ended assignments. Teach students how to narrow choices, use editing checklists and teacher rubrics. Shifting and flexibility also play a role in social situations inside and outside of the classroom. Teachers can teach this skill using practice session and real life scenarios. Teachers can talk about what “Losing your temper looks like.” They can brainstorm replacement behaviors and support the students through practice and role play (Dawson & Guare, 2017).

Metacognition. Metacognition is the ability to think about one’s thinking and learning processes and is embedded in all of the executive skills. When learning self talk, the final step involves metacognition - how did I do? When a student has completed a chapter test, the eventual goal should be analyzing the study plan. Analyze what worked and what didn’t work. How might the student change his/her plan? When a student has completed a study guide, the final step should be identifying remaining questions. Metacognition is a higher level thinking skill that needs to be developed in students with weak EF skills (Dawson & Guare, p. 64) although Meltzer, Pollica, and Barzillai (2007) suggest that students must first understand how they learn before executive skills can be taught.

Over the last several decades, much has been learned about executive function and the correlation between students with learning disabilities and ADD/ADHD. Methods of teaching EF and supporting struggling students in the classroom have been studied across the globe. The time

has come to implement a deliberate executive function curriculum for middle school students with documented weaknesses. It's essential for success in school and in life.

Chapter 3: Curriculum Overview

IT Support Class

Research is clear on the effects of poor executive function skills and the need for direct instruction over the course of middle school. Executive skills can be taught within the regular classroom setting. In fact, our district elementary schools do an excellent job of embedding EF skills into their instruction. When students enter our secondary schools, it becomes more challenging. Teachers embed EF skills into the curriculum early in the school year knowing the transition is a big one. By mid-year, the students are expected to be fairly independent in using executive skills. Although independence in EF is the expectation, many of the students struggle. Because I already have the students with the greatest EF needs in my IT Support class, it seems like a perfect opportunity to provide the needed direct instruction in IT. Although the EF skills will be taught as a stand-alone course, the skills will not be isolated from the regular education curriculum. For example, when students learn organizational systems, they will create them using their courses, their schedule and their particular teacher expectations. As they are learning working memory strategies, students will use information from their content area classes during the lessons. As part of the curriculum I added some fun activities that support EF during down time or “Fun Fridays” as well as Specially Designed Instruction to support students’ EF skills within the regular education setting. Between direct instruction, activities and specially designed instruction in the regular education setting, the students will have numerous opportunities to practice their EF skills.

The scope and sequence of this curriculum is provided at the end of this chapter, but it is understood that skills will be reviewed throughout the year. Students in this course can not learn an EF skill, complete a performance task and then never see the skills again. Teaching needs to be spiraled and reviewed continually. Very few lessons in the EF curriculum last a full 42 minute period. The reason for shorter EF lessons in IT is so that we are able to preserve time to review skills, check grades online via Powerschool, check planners and the Canvas calendar, study for tests, chunk and check long term assignments, and so on. Continual review is essential. I also kept the last week of each marking period free because of the hectic nature of the end of the marking period. I have observed that it's a stressful time for 6th graders who have never before experienced this crunch time of tests, quizzes, and project work that is due at the end of each marking period.

Middle School Curriculum

Although this curriculum is focusing on 6th grade and the transition to middle school, the intent is to develop an EF curriculum in 7th and 8th grade IT as well. 7th and 8th graders will review the skills taught in the 6th grade and delves into more advanced executive skills. The ultimate goal is to teach students various metacognitive strategies that teach them to think about their own thinking and monitoring their learning. The middle school EF curriculum will be structured much like a math or English curriculum. For example, in math students learn basic fractions, and the following year they review fractions and learn how to add and subtract fractions. In English, students learn action verbs, and the following year they review action verbs and learn linking verbs. The same is true in IT. In sixth grade the students will learn to organize

notes. In 7th grade they will review organization and move on to the more advanced skill of using notes to create study guides.

Curriculum Effectiveness

The effectiveness of the curriculum will be measured three ways. The first measure of success will be evidenced by the student performance tasks. The performance tasks in the first two units piggy back on each other. The students will create a presentation for next year's 6th graders with Helpful Hints to be presented during summer transition/orientation days or during the first days of IT Support. The presentation will include such topics as navigating the middle school, keeping an organized locker, organizing binders, papers and online folders, necessary materials, Chromebook charging, or anything else the student feels is important for incoming 6th graders. In the third unit students will create videos in a problem/solution format addressing their "time robbers," and complete Ready / Do / Done organizers for organizing and completing tasks. As a Unit 4 performance task, students will create a presentation explaining working memory and strategies students can use to support working memory. All the students at Patton Middle School keep an online portfolio that we call My Story in their Google Sites. Their portfolios are shared at student led conferences in the fall and again at the spring open house. The performance tasks completed in IT Support will be uploaded to the students' My Story.

Next, the effectiveness of the curriculum will be evidenced in the academic performance of the students. At the end of this school year I will collect data through Powerschool to assess how many assignments were late or missing by my students in IT Support. At the end of next school year I will collect the same data from next year's IT Support students. We will be able to determine the success of direct instruction in EF skills. As the curriculum expands into 7th and

8th grade, I think it would be important to gather data of student performance over the course of their middle school career. Did organization, work completion and overall performance improve over three years of EF instruction? Lastly, it's important to gather input from regular education teachers, parents and students. Reflection is an important process in how this curriculum will change and grow.

Over the course of the first year of the curriculum implementation, information needs to be gathered on how ambitious the curriculum is. The pacing should be analyzed to determine if there is a balance between EF lessons as well as opportunities for students to have their own needs met in IT Support. We need to determine how much direct instruction students need in the basic technology used in the middle school for EF purposes. Will the need for direct instruction diminish as students use more technology in the elementary schools? There is a focus on organizing both the student binders and Google Drive as well as using both the paper planner and the learning management Canvas calendar. I wonder if that balance of paper copies versus online tools will change over time.

Another aspect of the curriculum to consider is how to ensure fidelity of the curriculum. Administration buy in is essential. My 6th grade teaching partner and I co-teach many IT lessons, so that will ensure fidelity across the 6th grade curriculum. 7th and 8th grade teachers will need time for teacher training and possibly observing the curriculum being taught in 6th grade. It's important that the 7th and 8th grade teachers have input in their curriculum; they know their students and the expectations of their particular grade level.

Technology

This curriculum relies on students using mandatory online sources such as Powerschool, the learning management system Canvas, Google Drive and Docs as well as optional applications such as Quizlet, Padlet, Plotagon, Adobe Spark, Animoto and others. It should be noted that students entering the middle school come to us with a variety of skills and familiarity of these sources. It's up to the individual teacher to how he/she chooses to provide instruction on these online sources. Canvas, Google and Powerschool instruction is essential to success in the curriculum and in middle school. Students should have choice in the applications they are going to use to create their performance tasks. Teachers can show examples of the applications, provide mini lessons and allow more knowledgeable students to support less skilled students. Teachers should not feel obliged to provide the students with a schmorgus board of options, but students should have choice in how they create their products.

Scope and Sequence

Marking Period 1

6 cycles in 1 marking period. Class meets four days per cycle.

Timeline is flexible and will be adjusted as needed.

	Day 1	Day 2	Day 3	Day 4
Cycle 1	Unit 1 20 minute periods. Getting to know you. Practice lockers	Unit 1 Navigating the school - day 1 -Practice Lockers	Unit 1 Navigating the school - day 2 -Practice lockers	Unit 1 Binder organization - day 1. Discussion and create shopping list
Cycle 2	Unit 1 Binder organization- day 2. (set up binders) -Youtube Video -Locker organization / color coding.	Unit 1 Navigating the School- day 3 (using map). -Continue to check binder organization	Unit 1 Binder organization- day 3. (set up binders) -2nd Youtube video -Binder organization	Unit 1 Activity and/or get feedback from students.

			checklist	
Cycle 3	Unit 1 Writing Utensil and Chromebook charging (this is about the time students are given Chromebooks)	Unit 1 Google Drive Organization	Unit 1 Locker Activity- Step 1 Finish organizing Google Drive	Unit 1 Locker Activity- Step 2
Cycle 4	Unit 1 Locker Activity- Step 3 Complete EF questionnaire and hand out parent questionnaire to take home.	Unit 1 Begin Helpful Hint Performance Task	Unit 1 Helpful Hint Performance Task	Unit 1 Activity or finish Helpful Hint
Cycle 5	Unit 2 Goal Setting- Day 1 Short term goal	Unit 2 Goal Setting- Day 2 Reflect and write a new goal	Unit 2 Goal Setting- Day 3 SMART goal	Unit 2 Use of Planner/Calendar- day 1
Cycle 6	End of Marking Period Crunch Time - no direct instruction	End of Marking Period Crunch Time - no direct instruction	End of Marking Period Crunch Time - no direct instruction	End of Marking Period Crunch Time - no direct instruction

Marking Period 2

6 cycles in 1 marking period. Class meets four days per cycle.

Timeline is flexible and will be adjusted as needed.

	Day 1	Day 2	Day 3	Day 4
Cycle 1	Unit 2 Use of Planner/Calendar- day 2	Unit 2 Time Awareness- day 1	Unit 2 Time Awareness- day 2	Unit 2 Time Awareness- day 3
Cycle 2	Unit 2 Goal Setting day 4 Discuss Prioritizing Assignments	Unit 2 Prioritizing Assignment Activity	Unit 2 Helpful Hints/ pt2	Unit 2 Helpful Hints/ pt2
Cycle 3	Unit 2 Helpful Hints/ pt2	Unit 2 Activity or finish Helpful Hints	Review Check binder and online folders	Review Check lockers and writing utensils

Cycle 4	Unit 3 Introduce Vocabulary	Unit 3 Continue Vocabulary	Unit 3 Quick Vocab Review	Unit 3 Vocabulary Quiz
Cycle 5	Unit 3 Time Robbers- day 1	Unit 3 Time Robbers- day 2	Unit 3 Capturing Time Robbers Performance Task- day 3	Unit 3 Activity or finish Time Robbers Performance Task
Cycle 6	End of Marking Period Crunch Time - no direct instruction	End of Marking Period Crunch Time - no direct instruction	End of Marking Period Crunch Time - no direct instruction	End of Marking Period Crunch Time - no direct instruction

Marking Period 3

6 cycles in 1 marking period. Class meets four days per cycle.

Timeline is flexible and will be adjusted as needed.

	Day 1	Day 2	Day 3	Day 4
Cycle 1	Unit 3 Preferred vs Non-Preferred School Tasks- day 1	Unit 3 Preferred vs Non-Preferred School Tasks- day 2	Unit 3	Unit 3 Intro to Ready/Do/Done- day 1
Cycle 2	Unit 3 Ready/Do/Done- day 2	Unit 3 Ready/Do/Done- day 3	Unit 3 Ready/Do/Done- day 4	Unit 3 Ready/Do/Done- day 5
Cycle 3	Unit 4 Intro to Unit 4 Memory/ Shout it Out Activity	Unit 4 Memory unit- Direct Instruction	Unit 4 Memory unit- Match it Up Activity	Unit 4 Catch up and review
Cycle 4	Unit 4 Crash Course w/ Hank Green & Think/Pair/Share	Unit 4 Memory unit- Chunking Assignments	Unit 4 Memory unit- Using checklists	Unit 4 Memory unit- Routines, sleep and exercise and no multitasking
Cycle 5	Unit 4 Memory unit- Day 4 review	Unit 4 Memory unit- Memory Games	Unit 4 Memory unit- Mnemonics	Unit 4 Memory unit- Visualization and pictures

Cycle 6	End of Marking Period Crunch Time - no direct instruction	End of Marking Period Crunch Time - no direct instruction	End of Marking Period Crunch Time - no direct instruction	End of Marking Period Crunch Time - no direct instruction
---------	---	---	---	---

Marking Period 4

6 cycles in 1 marking period. Class meets four days per cycle.

Timeline is flexible and will be adjusted as needed. There are buffer day embedded at the end of the year.

	Day 1	Day 2	Day 3	Day 4
Cycle 1	Unit 4 Continue Memory unit- Categories	Unit 4 Memory unit- Memory Games	Unit 4 Memory unit- Tools- google keep, stickies	Unit 4 Memory unit- Tools- writing in text, post-its
Cycle 2	Unit 4 Memory unit- Voice Recording- summarizing	Unit 4 Memory unit- Working Memory Performance Task	Unit 4 Memory unit- Working Memory Performance Task	Unit 4 Memory unit- Working Memory Performance Task
Cycle 3	Check Digital Portfolio to be sure all performance tasks are in Google Sites.	Buffer days and opportunity to spiral back to previously learned skills.	Buffer days and opportunity to spiral back to previously learned skills.	Buffer days and opportunity to spiral back to previously learned skills.
Cycle 4	Buffer days and opportunity to spiral back to previously learned skills.	Buffer days and opportunity to spiral back to previously learned skills.	Buffer days and opportunity to spiral back to previously learned skills.	Buffer days and opportunity to spiral back to previously learned skills.
Cycle 5	End of Year Crunch Time - no direct instruction	End of Year Crunch Time - no direct instruction	End of Year Crunch Time - no direct instruction	End of Year Crunch Time - no direct instruction
Cycle 6	End of Year Crunch Time - no direct instruction	End of Year Crunch Time - no direct instruction	End of Year Crunch Time - no direct instruction	End of Year Crunch Time - no direct instruction

Chapter 4: 6th Grade Executive Function Curriculum

Unit 1 - Organization

“the ability to create and maintain systems to keep track of information and materials”

Unit Summary: This unit is the first in the EF curriculum because the 6th graders are transitioning from an elementary school with generally one classroom teacher to the middle school with five different content area teachers and as many as seven special area teachers. Organization is not only critical to success in middle school, but organization is an essential life skill as well. An organized individual is able to arrive to class on time, keep effective organizational systems and meet expected deadlines. (Dawson and Guare, 2017).

In August before the start of the new school year, the guidance counselors and teachers host what we call “transition camp.” Incoming sixth grade have the opportunity to tour the school, practice lockers, and socialize with students they know and students from other elementary school. In small groups students share some of their concerns about the new school. From what I’ve observed with my transition camp groups, the two most urgent concerns of 6th graders are navigating the middle school and using their lockers efficiently. They very much want to be able to get from class to class without getting lost and open their lockers so that they aren’t late to class or embarrass themselves in front of their peers. These lessons in unit one are an important start to the school year.

The second lesson at the start off the school year is to introduce a binder organization system. The working notebook is the workhorse of the organizational system. Care should be taken at the start of the school year to set this up, and practice using it until it becomes habit. The student carries the binder from class to class. Each class has a divider, and loose leaf paper. Good practice would be to color code the divider, that subject’s book cover and any necessary corresponding spiral notebooks or folders. A pencil pocket should have extra pencils/pens and a sharpener. The 3 hole punch is useful for papers that are returned that have not been hole punched.

6th graders at Patton Middle School have two special area classes first thing in the morning. This is when the students have their Executive Function course. After their specials they have two content area classes, lunch and then three content area classes. Many of the 6th graders prefer to have two binders, one for before lunch classes and one for after lunch classes. These students would need a third small binder that holds their planner and pencil pocket that they carry all day.

The working binder is important because when a student is in class, all materials will be easily accessible. When preparing for a test, all the materials will be in the subject area folder.

Those homework papers, assignments, study guides, etc, can be put together in order to create study guides for the test. Once the student gets the test back, he/she can staple the test and the corresponding assignments together to be filed away. A reserve notebook or accordian folder can be kept at home or in the locker if there is space. Every couple of weeks the student can go through the working notebook and file away any work that is no longer needed. If it is done every couple weeks, it is a small task. Doing this infrequently will create frustration and will contribute to a disorganized notebook. Students who struggle with EF will need prompting and support from the teacher and parent.

Students who struggle with EF will need additional time to maintain the organization of this working notebook. Perhaps part of the evening homework routine would be to make sure papers are in the correct section of the notebook and to be sure loose papers are filed correctly.

Stage 1 – Desired Results

Established Goals

1. Students will develop strategies to document important information/events.
2. Students will develop strategies to plan and monitor progress towards completion of or preparation for future events/tasks.
3. Students will develop strategies to organize materials.

Standards: Content Area Standards Connected to Goals :

ELA Standard - CC.1.4.6.D Organize ideas, concepts, and information using strategies such as definition, classification, comparison/contrast, and cause/effect; use appropriate transitions to clarify the relationships among ideas and concepts; provide a concluding statement or section; include formatting when useful to aiding comprehension.

ELA Standard - Standard - CC.1.4.6.J Organize the claim(s) with clear reasons and evidence clearly; clarify relationships among claim(s) and reasons by using words, phrases, and clauses; provide a concluding statement or section that follows from the argument presented.

ELA Standard - CC.1.4.6.P Organize an event sequence that unfolds naturally and logically.

Students will be able to independently use their learning to....

navigate the middle school, use a locker with a combination lock, organize their materials and time in order to manage their life in school and out of school.

<p>Understanding(s) Students will understand that:</p> <ul style="list-style-type: none"> • you need to efficiently navigate the middle school when you have 3 minutes between classes. • that there are strategies people use to organize materials. • there are strategies to document important information/events. 	<p>Essential Question(s):</p> <ul style="list-style-type: none"> • What does it look like to be organized? • Why is organization important in school and outside of school?
<p>Students will know...</p> <ul style="list-style-type: none"> • how get get around the middle school. • how do you use the planner and Canvas calendar? • how to organize materials - locker, binder, supplies 	<p>Students will be skilled at...</p> <ul style="list-style-type: none"> • navigating the middle school. • opening a locker using a combination lock. • developing a master notebook system • keeping an organized online folder system
<p>Stage 2 – Assessment Evidence</p>	
<p>Performance Task(s): Evidence Criteria:</p> <ul style="list-style-type: none"> • Prove It: Photographic proof of successful navigation of the middle school via the scavenger hunt and organized locker. • <u>Binder organization checklist</u> <ul style="list-style-type: none"> ○ Appendix B • Helpful Hints: student projects will include the following: <ul style="list-style-type: none"> ○ preparing before school (summer tour, transition camp, etc). 	<p>Assessment Evidence: Performance Task:</p> <ul style="list-style-type: none"> • Prove It: students, you will share photographic proof of navigating the middle school efficiently and an organized locker. • Helpful Hints for 5th Graders! 6th Graders - you are going to create a booklet for next year's 6th graders with helpful hints on staying organized in middle school. You can create your booklet on paper, via Google Presentation, Padlet or Adobe Spark. Include tips for: <ul style="list-style-type: none"> ○ preparing before school (summer tour, transition camp, etc). ○ getting around the middle school. ○ keeping an organized locker. ○ organizing your binders and papers. ○ materials you need for classes. ○ chromebook charging, pencils, pens.

<ul style="list-style-type: none"> ○ getting around the middle school. ○ keeping an organized locker. ○ organizing your binders and papers. ○ materials you need for classes. ○ chromebook charging, pencils, pens. ○ anything else- rules, lunch, activities? ● Each tip will include a visual. ● Each tip will be edited for spelling and grammar. 	<ul style="list-style-type: none"> ○ anything else- rules, lunch, activities? <p>Other Evidence:</p> <ul style="list-style-type: none"> ● Pre-assessment includes information for IEPs, evaluations and reevaluations ● Student, parent and teacher questionnaire at the start of the year. (See Appendix A) Formative assessment throughout the year. ● Student feedback ● Teacher and Student feedback. <ul style="list-style-type: none"> ○ Students will get to class on time. ○ Students will arrive to all classes with necessary materials. ○ Students will maintain an organized locker. ○ Students will maintain an organized binder organization system ○ Students will maintain an organized Google Drive ○ Monitoring planner and/or Canvas calendar at the start of each class period for the first quarter.
--	--

Stage 3 – Learning Plan

Learning Activities:

Direct Instruction / Lessons

Navigating the school: 3 periods - activity lasting 20 - 30 each period

- Tour of the building. Teacher guides the students and asks Individual students take turns leading the way to various locations in the school.
- Scavenger hunt.
 - The teacher will create 3x5 cards- each with four location names (nurse, room numbers, gym, etc)
 - Arrange students in small groups of 2 or 3.
 - Student groups take the location card, an iPad or personal phone and take a photo of each location.
 - When all photos are taken, return to the show the teacher the photographic “evidence.”
 - Repeat the next day with a more challenging location card (mural, hawk sculpture, maintenance room, location where you take your bus notes, the classroom where you will learn to cook)
 - Third day,

- Give the students five locations around the school. In partnerships or threesome, the students will find the locations and return to the classroom with photographic proof. The teacher will time each partnerships/groups.
- Give the students a map and the same five locations around the school. The students will plot the most efficient course on the map. The students will find the locations and return to the classroom with photographic proof. The teacher will time each partnerships/groups. Compare the time to first run. Discuss.

Binder Organization System: 3/4 periods - 15 minutes per period

- Discuss importance of maintaining an organizational system for middle school.
 - Guiding Questions: What does organization look like? What role does it play in life? In school? Outside of school? What organizational systems do parents, friends or siblings use? What worked for you in elementary school? How do you think organization in middle school will be different?
 - Understand that over time you will learn to create your own organizational systems, but at the start of sixth grade we are here to teach you how to organize your school work to support your success.
- Option 1: The Working Notebook
 - Big, sturdy and (ideally) should have a zipper
 - Divider for each class
 - Different color for each class
 - Page protectors for important papers
 - Math formulas, grammar rules, etc
 - Notebook paper behind the divider
 - Pencil pocket
 - 3 hole punch
 - Students carry it from class to class
 - Include calendar/agenda/planner
- OR, Option 2: separate morning and afternoon binder
 - If option 2 is chosen, discuss pencil pocket, agenda, etc. Maybe in a 3rd binder that goes to both morning and afternoon classes.
- Bring all binders, folders and books to class
 - Set up a binder organization system
 - Day 1, decide on option 1 or option 2. What materials are needed? Record needs in agenda.
 - Day 2, bring all materials to class. Students will work with a partner to see that papers are being filed into designated folders. Final check by teacher or paraprofessional.
 - Day 3, same as above
 - Day 4, same as above
 - Continue to monitor on a regular basis (See Appendix B)

- Links for binder organization: These are nice YouTube clips because they are created by young people so middle school students may pay more attention.
 - How I Organize My Binder: Tips and Tricks
<https://www.youtube.com/watch?v=JD-hg--2Muk>
 - School Binder Tour: Which Binder's Better?
<https://www.youtube.com/watch?v=c4jhFvDrhkY>

Writing Utensil Lesson - pencil / pen / Chromebook: 1 Class Period. 15 minutes

- The teacher will lead a brainstorming session on the importance to have a writing utensil when they arrive at class.
- The students will brainstorm ways to access writing utensils if they do not have a pencil/pen.
- The teacher will offer to support their efforts to have a writing utensil. Next to the door in the classroom a picture of a pencil/pen will be posted as a reminder. The teacher will also prompt the students to check for a pencil/pen before they leave IT class. There will be pencils and a sharpener for students who do not have one with them.
- Chromebook
 - Must be charged each night. We don't charge Chromebooks
 - Plan a place to set up your charger - chargers stay home
 - Close your eyes, picture it. Visualize when you plug it in to charge.

Locker Organization: 2 periods - activity lasting 20 - 30 each period

- Step 1: Ongoing practice opening locker for the first week or two depending on need.
 - Discussion on color coding - morning colors and afternoon colors of book socks and folders - discussion may occur on binder organization day.
- Step 2: Have students bring all books, binders, notebooks, etc to the classroom.
 - Take pictures of before lunch stack of books and after lunch stack of books.
 - Print out small pictures, laminate and have students hang in their lockers.
- Ongoing: Beginning weekly, have students organize and check each other's lockers. Fade to every couple of weeks.
 - Proof of organized locker - take a photo of organized locker to share with teacher as proof

Online Organization: 1 period, 20 minutes w/ time to organize

- Provide direct instruction on importance of maintaining an organized Google Drive (easy access, quick search, no lost docs, avoid clutter).
- Provide direct instruction on what an organized Drive looks like: elementary folder, subject area folders, color-coded, titled documents.
- In small groups, students will create small posters that outlines the Online Folder Organization System to hang in the classroom.

Helpful Hints for 5th Graders (continued): 2-3 class periods

- See performance task.

Classroom Activities:

- Ongoing teacher and peer locker checks (with photographic proof)
- Ongoing binder checks
- Reserve time to periodically organize google drive.
- Begin each class period with planner and/or calendar checks.
- Continued discussion. Is your binder working for you? Does the paper planner or digital calendar work for you? Do you check it at the end of the school day?
- Ongoing discussion / brainstorming on strategies to include out of school life in daily planner.

Support in the Regular Education Classroom:

- The students will be prompted by the regular education teacher or paraprofessional to classroom paraprofessional to record assignments in the planner/calendar.
- Advisory teachers will check planner in advisory at the end of the day for the first quarter fading if shown competency.
- Prompt students to check their Canvas calendar at the end of the day.
- Consistent homework recording and collection practices.

Understanding By Design – Backwards Design Process

Developed by Grant Wiggins and Jay McTighe

Resources:

- **Use of Planner/ Calendar Resources**
- Resources when thinking about planner organization and ADD: May not be appropriate for all students (not yet have the skill set or too immature/young) but may be applicable to some.
 - Why the Bullet Journal is the Best Planner for ADHD Brains
<https://www.youtube.com/watch?v=5hLnY9L1c-M>
 - How to Create a Bullet Journal Plus My Top 10 Tips
<https://www.youtube.com/watch?v=jkZEEQG6IVE>
 - What is Organization <https://vimeo.com/31461832>

Unit 2 - Planning and Prioritizing

“the ability to create steps to reach a goal and to make decisions about what to focus on”

Unit Summary: Goal setting and managing multiple obligations are essential concepts to explore early in the school year because these are often new challenges for middle schoolers. The complex task of planning and prioritizing assignments due to increased expectations and managing multiple teachers is one of the biggest transitions from elementary school to middle school. These skills are needed in order to complete classwork, homework, and long term assignments as well as study for tests and quizzes. It’s also important that students know how to plan and prioritize when juggling activities with friends, family and extra curricular activities.

This is an important unit for the Itinerant Support class. Students with EF weaknesses often struggle with work completion because of poor planning skills. Thomas Brown’s (2008) research indicates that, “They seem to have great difficulty figuring out how long a task will take and then prioritizing by putting some items ahead of others, deferring some to another day, or simply recognizing some as currently not possible.” This makes direct instruction in planning and prioritizing essential as students transition to middle school. In elementary school students are often given worksheets to complete for homework, and this homework goes in the “homework” folder. From what I’ve observed in middle school, different teachers have their own particular homework expectation, and homework often involves completing assignments that were started in class. Students who are organized and efficient with their time have less homework than students who struggle with EF dysfunction.

Another new experience for the 6th graders at Patton Middle School is utilizing the online grading program (Powerschool). They need to be taught to analyze their scores and understand the point categories and values. For example, in math class, test are worth 50% of the grade, quizzes 40% of the grade, and homework is 10% of the grade. Is making up a short homework assignment a better use of time than preparing for a test? In English class, writing

assignments are 30% of the grade. If there are only 2 writing assignments per quarter, those assignments can quickly raise a grade or drop a grade. Students have a hard time understanding that an “F” on a 3 point homework is not nearly as critical as an “F” on a 30 point writing assignment. For students with strong EF skills, this might not be an issue, but if a student struggles with work completion, they wind up playing “catch up.” They don’t see that “studying” is an efficient use of their time.

Researchers Lynn Meltzer, Pollica, & Barzillai (2007) recognizes that goal setting, planning and prioritizing not only affect the ability to plan assignments, study and prioritize projects, it also affects the ability to carry out academic tasks such as reading comprehension and written instruction. For example, an important step in the writing process is planning and determining the first step of the process and then planning an organized structure. IT Support class will teach SMART goal setting and planning/prioritizing strategies, as well as providing support in these skills through content area assignments. Because of this carryover, I’ve included just a few content area standards that require the skills taught in this unit.

Stage 1 – Desired Results

Established Goals

1. Students will identify and write SMART goals.
2. Students can identify different strategies to plan time in and out of school.
3. Students will demonstrate the ability to prioritize various tasks.
 - a. Homework vs classwork vs projects vs test prep
 - b. Social time, down time and extracurricular activities

Standards: ELA Standard Connected to Planning and Prioritizing:

Writing Standard - CC.1.4.6.T With guidance and support from peers and adults, develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach.

FCS Standard - 11.2.6.D Identify the concepts and principles used in planning space for activities.

Computer Science Standards Standard - 2.AP.18

Distribute tasks and maintain a project timeline when collaboratively developing computational artifacts.

Students will be able to independently use their learning to....

plan and prioritize their time in and out of school in order to meet obligations.

Understanding(s)

Students will understand that:

- goal setting is an important process in creating a plan to accomplish a task.
- there are long term/short term goals in all areas of life (academic, social, emotional).
- there are different ways to organize tasks.
- it is necessary to prioritize tasks such as homework, classwork, projects, and test prep in order to meet goals.

Essential Question(s):

- What is a goal, why do we need goals and how do people create and manage goals?
- How do people manage multiple obligations and commitments?

Students will know that...

- goals should be specific, measurable, achievable, and relevant.
- assignments are not assigned value equally, for example.
 - tests are worth more percentage points than projects and classwork.
 - projects and classwork are worth more percentage points than homework.
 - homework can never be more than 10% of your grade.

Students will be skilled at...

- writing meaningful short and long term goals
- creating plans to meet goals
- planning assigned work to maximize learning and point value.
- planning time to complete assigned work at school and at home.
- utilizing a planner and/or digital calendar to plan school time, home work and activities.
- prioritizing work according to point value.

Stage 2 – Assessment Evidence

<p>Performance Task(s): Evidence Criteria:</p> <ul style="list-style-type: none"> • Goal and goal reflection (Appendix C) • Helpful Hints for 5th Graders performance task. Your booklet must include: <ul style="list-style-type: none"> ○ why goals are important. ○ smart Goals. ○ using your time well. ○ estimating and managing homework time. ○ how to use either the Canvas calendar or planner. ○ prioritizing work. ○ Also... ○ Look at the unit 1 information. Is there anything you'd like to revise or add? ○ Each tip will include a visual. ○ Each tip will be edited for spelling and grammar. ○ Upload to My Story digital portfolio. 	<p>Assessment Evidence: Performance Task:</p> <ul style="list-style-type: none"> • Helpful Hints for 5th Graders! 6th Graders (Continued) - you are going to add to your booklet for next year's 6th graders with helpful hints on staying organized in middle school. Did you create your unit 1 booklet on paper, via Google Presentation, Padlet or Adobe Spark? Simply add onto your booklet. Include: <ul style="list-style-type: none"> ○ why goals are important. ○ smart Goals. ○ using your time well. ○ estimating and managing homework time. ○ how to use either the Canvas calendar or planner. ○ how to prioritize work ○ also, look at the unit 1 information. Is there anything you'd like to revise or add? <p>Other Evidence:</p> <ul style="list-style-type: none"> • Quarterly progress reports and grades • Students will write short and long term SMART goals, reflect on goals and adjust goals when appropriate. • Students will be able to accurately predict the amount of time it takes to complete tasks as evidenced by time prediction activity and timing classwork and homework. • Students will be able to prioritize assignments according to time constraints, point value and "bang for the buck." • Time awareness worksheet • How do you spend your day activity sheet. • Time predictions in homework planner/calendar w/ verbal reflection on accuracy • Completion of prioritizing activity
<p>Stage 3 – Learning Plan</p>	

Learning Activities:

Goal Setting: Activity: spread out of two periods- w/ ongoing reflection and support.

- **Day 1:** <https://www.youtube.com/watch?v=NG3HxrW1qZk>
 - Watch, discuss. Why did we watch it? What are the difference between a short term and a long term goal? “Today we are going to create one short term goal. It can be for school or for home. For example, my goal today is to “
 - Activity - set one daily goal. Jot in your planner or calendar. “Know that we will review the goal tomorrow.”
- **Day 2:** Review goal that you set the previous day. Did you meet your goal? What interfered with meeting your goal?
 - Watch: What are your goals? (Gates Foundation) <https://www.youtube.com/watch?v=h8IyPEZO-PA>
 - Set another goal and reflect the following day. Continue for the week.
- **Day 3:** Introduce the words: specific, measurable, achievable, relevant
 - What words do you know? What roots do you know? How would they relate to setting goals?
 - SMART Goals https://youtu.be/3PA-O_u2BIk?list=PLVTePnb0rj1PUMu3oPs5ndWkIbWwmjOzc
- **Following Monday or first day of the cycle** - Set a goal for the week on a post it note. Post in locker and reflect each day of the week.
 - End of the week, reflection - verbal, writing or video
 - After the weekly goal, create one or two marking period goal. Academic and other. Put on 3x5 card. Decorate. Laminate and post in locker. Reflect periodically and assess at the end of the quarter through a videoed reflection to be uploaded to digital portfolio.

Use of Planner and/or Canvas Calendar: 2 class periods, 15-20 minutes each, continuous monitoring

- **Day One**
 - As a group, instruct students to go into Canvas Calendar.
 - Demonstrate on the Smartboard and students work on their Chromebooks
 - Highlight classes listed on the right hand column so they appear in the calendar.
 - Explain that teachers put assignments in the calendar the day they are due.
 - Note that when a date is ~~crossed off~~, that means that it's past due, not that the assignment is completed or no longer due.
 - Show students how to add events to the calendar.
 - Demonstrate and have students add personal events to their calendar.
 - Demonstrate back mapping of assignment.
- **Day Two:** Show example with the understanding that this skill will require ongoing instruction and support
 - Discuss the use of the planner. (Students used planners in elementary school so they are not new to the 6th graders.)
 - Note that “Reading” block is Literacy class and “English” is English class.
 - Demonstrate ways to use the additional space at the end of each page
 - Show the students that each month starts with a calendar.

- “Walk Through Your Day” - Using the [large daily time banner](#) (Appendix D), have the students walk through their day.
 - In middle school the students get home earlier than elementary school. When is a good time to do homework and work on organization?

Time Awareness: Activity spread over three periods- w/ ongoing support.

- [Time awareness](#) (Appendix E)
 - **Day 1** - With a partner estimate times for steps 1-4. Then time how long each step takes.
 - Complete the form as you go along.
 - How long do you think it will take to walk one lap around the school? How long did it actually take?
 - How long to go up and down the stairs three times? How long did it actually take?
 - How long does it take to do one math problem? How long did it actually take?
 - How long does it take to do five math problems? How long did it actually take?
 - Debrief. Did the activities take longer than you thought or less time? Were you more accurate on physical activities or the cognitive activities. Why do you think it took you less time than you expected to complete five math problems?
 - **Day 2** - complete the last two steps of the time activity.
 - How long will it take to organize your Google Drive? How long did it actually take?
 - How long will it take to jot in planner and file the given paper? How long did it actually take?
 - Debrief again. Does organizing take longer or less time than you thought? What are the advantages to estimating time? Discuss procrastination. If you had to rank yourself in estimating time, where would you fall? 1-5?
 - **Day 3** - How do you spend your day activity. Executive Function: A Blueprint for Success
 - Pie chart of 24 hours. Shade in how time is spent: sleep, school, eating, activities, TV, etc
 - Discuss as students complete activity. Ex: what time do you go to bed? How long do you spend eating? What do you do when you get home from school?
 - Discuss results. Written response- what do you notice about how you spend your time? What surprised you? Is there anything you'd like to change?
 - **Ongoing support**... when you write in your planner/calendar for the next week, jot down how long it will take 1 of your assignments. Time it. How close were you? Discuss at the start of class for at least the next week.
 - Reintroduce the [large daily time banner](#) and have the students walk through their day when thinking about times to get work completed. (Appendix E)
- **Prioritizing Assignments**
 - Hand out various “assignments” on 3x5 cards explaining that these are the assignments for a particular class over the course of the marking period.
 - Things to think about when prioritizing: What category is the assignment? What is your grade in the class now? How long does each assignment take? Any other considerations?
 - Sample

Math hw (3 points)	Practice Quiz to study for vocab test (classwork 10 pts, test 35 pt)	Finish Science Project (25 pt)
Study for SS test (60 pt test)	Pronoun worksheet (5 pts)	Finish Guided Reading for SS (classwork 10 pts)

- With a partner, order from highest priority to lowest priority.
- As a group, share your priorities and rationales.

- **Helpful Hints for 5th Graders (continued):** 2-3 class periods
 - See performance task.

Activities:

- Jenga
- Checkers and Chess
- Various board games
- Build structures out of 3x5 cards and tape; [example: https://www.youtube.com/watch?v=_Ch3U_RZc9M](https://www.youtube.com/watch?v=_Ch3U_RZc9M)

Supports in Regular Education:

- Graphic organizers for reading and writing assignments
- Rubrics organized as checklists
- When assigning work, give estimated time to complete.
- Suggest students jot estimated time to complete assignment in their planner/calendar.
- Chunking long term assignments with specific due dates and check ins. Be sure due dates and check ins get put into the calendar and/or planner.

Understanding By Design – Backwards Design Process

Developed by Grant Wiggins and Jay McTighe

Resources:

Youtube videos- see links

Cognitive Connections - large daily time banner

(<https://efpractice.com/shop/walk-through-your-day-time-banner>)

Executive Function: A Blueprint for Success Guide by Premier

<https://www.amazon.com/Premier-Executive-Functions-Student-Middle/dp/B01M9FIGHM>

Unit 3 - Task Initiation

“the ability to recognize when it is time to start working on something and begin without procrastinating”

Unit Summary: I think it’s fair to say we all understand how difficult it is to begin non-preferred tasks and avoid procrastination! It’s a universal conundrum. When I was a sixth grader I was a procrastinator, but my distractors were friends and TV. Think about 2019 distractors- social media, Youtube, games. These are infinitely more interesting and readily available than a social studies guided reading or science note taking. A large percentage of students’ assignments are completed online. Once the Chromebook opens, the distractors are endless. How can today’s students implement strategies to initiate a non-preferred task?

This Task Initiation unit aligns with Brown’s (2008) “Activation of Task” domain. Although “Activation” includes, planning and prioritizing which is covered in unit 2, the domain also includes initiating work. The ability of a student to begin an assignment with minimal procrastination actually crosses several domains. Brown’s third domain, Focus, encompasses focusing on a task and sustaining and shifting attention which are essential steps in task initiation. For sixth graders with ADHD or learning disabilities, focusing and shifting attention can be a roadblock to starting an assignment. Difficulties in shifting attention is evident in the classroom setting when the teacher transitions activities. Imagine students who have a hard time focusing and shifting attention being instructed to move on from playing an engaging review game to completing a study guide. It’s difficult. Furthermore, Barkley’s (2015) domain of Emotional Control discusses managing frustration which can be a challenge when given a difficult task. His fourth domain of Self Regulation is relevant to this unit on Task Initiation because it involves the skills of regulating affect, motivation, and arousal. For a middle schooler to maintain motivation and arousal during a non-preferred assignment is a challenging task.

For my 6th graders in IT Support, task initiation is a difficult. It seems like it should be easy, “Just start!” For many it’s very challenging to, “Just start.” Some of the common complaints I hear are, “I can’t do it,” “It’s too hard.” “I need your help!” “I’m soooo tired!” What

I've observed over the years is that students are often skipping a step to task initiation. For example, when beginning an assignment to complete a graphic organizer for science class, they'll look at the organizer, throw their hands up in the air and moan, "I don't know any of this." What they failed to do is read the directions and open up the textbook to see the information in sequential order. Once I prompt the students, many of the roadblocks to completing the assignment are removed. Students must learn how to get ready to begin an assignment. They also must learn about their own personal distractors and internal and external motivators. This is a stepping stone in enabling students to begin a task and then follow through independently?

Stage 1 – Desired Results

Established Goals

1. Students will be able to identify their non-preferred tasks.
2. Students will identify their "time robbers" and state possible strategies to combat procrastination.
3. Students will be able to identify the steps it takes to complete a task.
4. Students will be able to initiate a task in a given time.

Students will be able to independently use their learning to initiate preferred and non-preferred tasks and follow through on that task.

Understanding(s) Students will understand that:

- we all have "time robbers."
- there are strategies to combat time robbers.
- we all have both preferred and non-preferred tasks and there are strategies to initiate non-preferred tasks.
- the difference between Intrinsic / extrinsic motivators.

Essential Question(s):

- How do people know when it is time to start working?
- What strategies do people use to begin tasks and avoid procrastination?

<p>Students will know...</p> <ul style="list-style-type: none"> key vocabulary: time robbers, preferred tasks, non-preferred tasks, intrinsic motivation, extrinsic motivation, procrastination the difference between preferred and non-preferred tasks how to create a Get Ready, Do, Done plan 	<p>Students will be skilled at...</p> <ul style="list-style-type: none"> recognize their “time robbers” and know when they are procrastinating. implementing strategies to begin a task. identifying intrinsic and extrinsic motivators. breaking down a task to support task initiation
<p align="center">Stage 2 – Assessment Evidence</p>	
<p>Performance Task(s):</p> <p>Evidence Criteria:</p> <ul style="list-style-type: none"> In Capturing Time Robbers task, the student will: <ul style="list-style-type: none"> use precise vocabulary- at least two new vocabulary words. present task in a problem / solution format. Upload visual to digital portfolio. Students will create Ready / Do / Done- Get Done template on Google.docs. The template will include: <ul style="list-style-type: none"> Get ready - in yellow Do - in green Done - in red Get Done - included in the done column. Students will use their Ready/Do/Done template to complete a content area assignment. Did the students: <ul style="list-style-type: none"> begin with a visual in the done column? 	<p>Assessment Evidence:</p> <p>Performance Task:</p> <ul style="list-style-type: none"> Capturing Your Time Robbers: Using Adobe Spark, students will create a social media style post or poster advertising one way that a person can capture a time robber. Post will be presented in a problem / solution format. Ready / Do / Done -get done: Students will create their own template on Google.docs in a brochure format. (Appendix F) They will use their template to plan and organize a content area assignment and reflect on the use of the organizer. <p>Other Evidence:</p> <p>Pre-assessment included information for IEPs, evaluations and reevaluations</p> <ul style="list-style-type: none"> Pre-assessment: Student, parent and teacher questionnaire at the start of the year. (See Appendix A) Formative assessment throughout the year - parent, regular education teacher and Content area teacher feedback. Vocabulary quiz Student interviews regarding preferred and non-preferred tasks (See Appendix G) Written response to Get Ready/Do/Done.

- | | |
|--|---|
| <ul style="list-style-type: none"> ○ list of steps to complete assignment in Do column? ○ List supplies needed in Get Ready column? ○ remember the Get Done step? ● The student will complete a video reflection on the effectiveness of the organizer answering the following questions: <ul style="list-style-type: none"> ○ What assignment did you use your template for? ○ Did your template help you to visualize the assignment before you started? ○ Did you find you included all steps in the planning process? ○ Did you have all the materials needed before you started the assignment? ○ What was your ‘get done’ process? ○ What other types of assignments do you think this might help you with? ● The students will upload their template and video reflection to My Story | <ul style="list-style-type: none"> ● In content area classes, students will complete teacher assigned tasks (homework, class assignments) as evidenced through Powerschool and teacher feedback. |
|--|---|

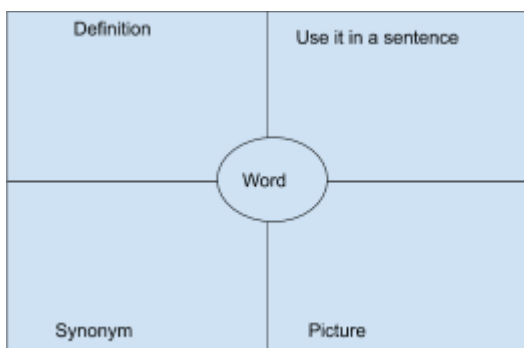
Stage 3 – Learning Plan

Learning Activities: End of the first quarter into the second quarter.

- 2 weeks

Vocabulary: One period w/ a quiz after a few days.

- Introduce the words: preferred tasks, non-preferred tasks, intrinsic motivation, extrinsic motivation, procrastination
 - “Do you recognize any prefixes or root words? Brainstorm where you’ve heard the words? What do you know about “motivation?”
- Complete 4 Square sheet for each vocab word



-
- Discuss and recap the words every couple of days until the students know the terms.
- Canvas Quiz on the vocabulary. Give the students scenarios and they match to it the term.
 - Ex: A student strives for good grades because he gets \$5 for each A on his report card.

Time Robbers aka Procrastination: 2-3 days - 15 minutes per day - ongoing

- Day 1
 - Teacher: tells a story about working on school work.
 - Gets distracted by social media and online shopping
 - Students identify teacher's time robbers
 - Think / Pair / Share "What are your top 2 time robbers?"
 - Think - jot your time robbers on a slip of paper
 - Pair - with a partner, share your time robbers
 - Share - share times robbers with the group
 - How to combat "time robbers"
 - Teacher- share strategy.
 - Students share strategies that work for them.
 - Get out planner / calendar.
 - Jot down a strategy in the planner to deal with "time robbers" for one night.
- Day 2: think / pair / share "How did you manage your time robbers yesterday?"
 - Watch [Eat that Frog](https://www.youtube.com/watch?v=_LCRUiC9IU0) https://www.youtube.com/watch?v=_LCRUiC9IU0
 - Discuss as a large group or in small group. What are your thoughts? Is it a good idea to "eat the frog first?" Will it help avoid procrastination and avoiding time robbers? What are your intrinsic motivators to avoid procrastination? Extrinsic motivators?
- Day 3: Using Adobe Spark, create a social media style post or poster advertising one way that a person can capture a time robber in a problem / solution format. Upload to My Story digital portfolio.
- Ongoing - continue to discuss time robbers and strategies to cope with procrastination.

Preferred vs Non-Preferred School Tasks

- 2 class periods
- Day 1
 - Discuss the variety of tasks the students are required to complete on their own.

- Note - Include their ideas into the attached Google Form.
 - Students will complete the Google Form ranking academic tasks from 1 to 5.
 - [Link to the Google Form](#) (Appendix H)
- Day 2:
 - Share the results with the students. Discuss.
 - Student interviews: With a partner the students will ask each other the following questions. Give the students a copy of the questions so that they can take notes.
 - [Questions and Rubric](#) (Appendix G)
 - Students will share with full group the results of the student interviews.
 - See rubric.

Get Ready / Do / Done via Cognitive Connections™ ([posters](#) and [planning boards](#))

<https://efpractice.com/shop/write-on-wipe-off-get-ready-do-done-planning-posters>

Lesson, 1 period. Reinforced over the course of the year. Note: Keep supplies in the classroom and make available for students to use outside of school.

- Day 1
 - Intro: Check out the following [video](#) to get a better sense of the strategy. (time - 33:55 to 38:31)
https://www.youtube.com/watch?v=UXXYy3_wpxw&t=2s
 - Red Poster → As a large group: Begin with the end in mind.
 - Why do we begin with the end in mind? We have to be able to visualize what needs to be done.
 - Chose a content area assignment the students need to complete (Ex: Study for vocabulary test)
 - “What will it look like when I’m done?”
 - Draw it out. Use pictures rather than words.
 - Ex: could be a picture of a test with a star or happy face on it.
 - Green Poster - Do Poster
 - Create a step by step plan.
 - Ex: take out vocabulary list and make note cards. Quiz myself 4 times. Quizlet w/ a friend. Take online practice test till I got a 100%
 - Yellow poster- Get Ready
 - What do you need to study for the vocabulary test? Create a list of supplies.
 - Ex: vocabulary list, 3X5 cards, and Chromebook with Quizlet and online practice test
 - Red Poster → Get Done - last but most important. What do you need to do to close out a task? Does it get turned in? Shared via Google? Submitted to Canvas?
 - Guided Practice
 - Using [planning pads](#), students will work in partnerships or small groups and break down a required task of their choice. (Planning Pads: <https://efpractice.com/shop/get-ready-do-done-paper-planning-pad>)
 - Partnerships will share their plans with group.
- Day 2 and ongoing: Review Strategy.
 - Discussion: How will utilizing the Get Ready/Do/Done strategy help with task initiation of preferred and non-preferred tasks? What type of assignments do you think this might work with?

- Day 3: Create Ready/Do/Done-get done template in Google.docs. (See Appendix F)
- Day 4: Use template to organize an upcoming assignment in a content area class. Complete Performance Task.
- Day 5: Complete video reflection.
- Template and the reflection of the task will be uploaded to Google Folder.

Activities:

- To be determined

Supports in Regular Education:

- In planner or online calendar, include assignment and tools needed to complete assignment (link to video, pg. In online textbook, example)
- Reinforcement given vocabulary terms
- Use of the color coded Get Ready / Do / Done post-it notes.
- Introduce project with visuals of the end in mind.

Understanding By Design – Backwards Design Process

Developed by Grant Wiggins and Jay McTighe

Resources:

Why You Procrastinate (It Has Nothing to do with Self Control)

<https://www.nytimes.com/2019/03/25/smarter-living/why-you-procrastinate-it-has-nothing-to-do-with-self-control.html>

Ted Talk: Inside the Mind of a Master Procrastinator - Tim Urban

<https://www.success.com/ted-talks-inside-the-mind-of-a-master-procrastinator/>

Unit 4 - Working Memory

“the ability to hold information in mind and use it to complete a task”

Unit Summary: Back in the day, when I was first studying special education, working memory was not a “thing.” We knew about short term memory and long term memory and knew that students with attention deficit struggled to pay attention and focus. What we didn’t know is that working memory is the place in the short term memory where we hold onto new information briefly while performing other cognitive processes. If a student has a strong working memory, they are typically able to follow classroom routines, complete homework independently, study for tests and quizzes, remember their locker combinations as well as read, write and complete math processes fluently. Students in my IT Support class have attention deficit and/or language based learning disabilities, and consequently have working memory weaknesses. Working memory is a key executive domain of the top EF researchers: Berkeley, Brown and Meltzer. Working memory affects students’ ability to be successful in school despite the fact that they are bright and strive to do well.

As students transition from elementary to middle school, those with a poor working memory will struggle. (Diamond 2013) The students have more teachers with various routines and expectations. In elementary school, students work to memorize math facts and spelling rules. In middle school students are expected to have mastered these skills and use them while doing more complex work like solving multi-step word problems or writing essays. If the memory is focusing on how to spell a particular word, the student will often lose their train of thought while composing which complicates the task. St. Clair-Thomas and Gathercole (2006) found that working memory correlates strongly with English (reading, writing and spelling) and math achievement. They concluded that students who score poorly on tests measuring working memory score below expected standards on national English, math and science tests in the UK. Eleven year olds in their study were found to “make many errors in remembering and carrying out instructions, keeping track of places in task, writing while formulating text, and carrying out mental arithmetic.” (St. Clair-Thompson and Gathercole 2006, pg 775). There are online

programs that train students to improve working memory, although studies have shown that there is little carry over beyond the program (Diamond 2012). Since working memory is not remediable, students must learn compensatory strategies, and teachers can support students by not overloading the working memory.

This unit is important in developing working memory strategies so that students are able to be successful not only in school but at home as well. Outside of school young people need to follow multi-step instructions, complete chores, and prepare for and participate in extracurricular activities. Adult life requires a strong working memory in order to get to work or school on time, complete projects, remember shopping lists, schedule family obligations and so on. It's important to teach middle schoolers strategies so they can compensate for a weak working memory and become successful in all aspects of life.

Stage 1 – Desired Results

Established Goals

1. Students will be able to identify how a working memory weakness can affect success in school and life.
2. Students will be able to identify strategies to support their memory.
3. Students will use a variety of memory strategies and reflect on the success of the strategies.

Students will be able to independently use their learning to... find external strategies to support their memory in order to be more successful in school and at home.

Understanding(s)

Students will understand that:

- there are different types of memory.
- working memory is an important part of the learning process.
- there are different strategies to support working memory based on the task and purpose.
- successful people understand their personal strengths and challenges with working memory and are able to compensate for challenges.

Essential Question(s):

- Why is a working memory important in all aspects of life?
- What can you personally do to support your working memory?

<p>Students will know...</p> <ul style="list-style-type: none"> the difference between working memory, long term memory, explicit memory and implicit memory. a variety of strategies to support working memory. some strategies to support working memory will work for them better than others, and it's important to understand what works for them. 	<p>Students will be skilled at...</p> <ul style="list-style-type: none"> identifying types of memory. using learned strategies to support working memory. reflecting on the success of learned strategies.
<p align="center">Stage 2 – Assessment Evidence</p>	
<p>Performance Task(s):</p> <p>Evidence Criteria:</p> <ul style="list-style-type: none"> A proficient presentation will be organized and include include: <ul style="list-style-type: none"> What is memory? Working memory is like... (simile) Why is working memory important for school and home? What are 2 things you can do to help you remember obligations? What are 3 strategies to help you remember information? What are 2 that tools can be used to enhance memory and how do they help? Upload to My Story digital portfolio with a short written reflection of what they have learned. <ul style="list-style-type: none"> Why did you go through this process in IT class? What strategies work well for you right now? 	<p>Assessment Evidence:</p> <ul style="list-style-type: none"> Smart lab Match It Up results Presentation Performance Task <p>Performance Task:</p> <ul style="list-style-type: none"> Imagine it is your job to teach a sixth grade class about working memory and strategies students can use to to support working memory. Create a presentation using Adobe Spark video, Animoto video, a Google presentation, or a Plotagon. Upload performance task to the students digital portfolios called My Story with a reflection of what they learned. Here is a small sample of what the digital portfolio will look like. Link. https://sites.google.com/s/1mf9Eg--BhLS36hMkbc9EiEWtTFueiv3B/p/1RY-3qM2NvY8ffaFA7-ijOq5r4Z83Vr9O/edit <p>Other Evidence:</p> <p>Pre-assessment includes</p> <ul style="list-style-type: none"> Smart lab Shout it Out results IEPs, evaluations and reevaluations Student, parent and teacher questionnaires at the start of the year. (See Appendix A) Formative assessment throughout the year. Student feedback

- Did you find strategies that did not work well for you?
What and why?
- A distinguished presentation will go above and beyond expectations.

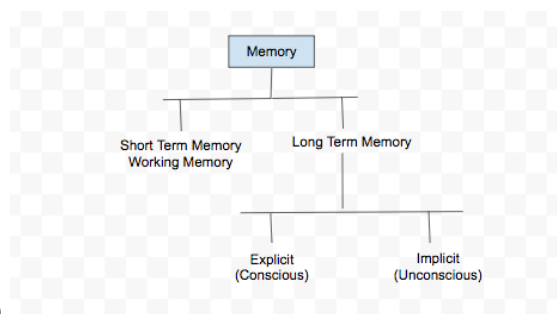
Stage 3 – Learning Plan

Learning Activities: 3 to 4 weeks

Third Quarter

Different Types of Memory: 3 days

- **Day 1:** Pose the following question to the students. What do you know about memory?
- Use Smart lab [Shout it Out](#) so that students can share what they know.
<https://www.youtube.com/watch?v=mrzZpdOkw0o>
 - What do you know about memory?
 - Use the randomized feature because students are simply sharing whatever they might know.
 - Leave display names on and choose that each student can answer 3 times.
- **Day 2:** Direct instruction on different types of memory.



(See Appendix I)

- **Day 3:** Use Smart lab [Match it Up](#) categorize types of memory.
 - Example (<https://www.youtube.com/watch?v=Euq52dRDixA>)
 - Working Memory / Long Term Memory
 - Explicit (conscious) / Implicit (unconscious)

How we make memories: 1 day

- [Crash Course w/ Hank Green](#)
 - <https://www.youtube.com/watch?v=bSyedIx-C48>
- Show video and discuss. Think / Pair/ Share

- How do you think you remember best?
- What do you have a hard time remembering?
- Discuss as a large group.

How can you better utilize your working memory? Introduce one or two strategies a day. 2-3 cycles

- Give examples and have students practice with content area assignments they are working on presently. Ex: if students are learning parts of the cell in science, create a rhyme to remember. If learning vocabulary for English, create a picture to match each word.
 - Break assignments into chunks
 - Use checklists
 - Develop routine - charge Chromebook same time, same place, keep backpack in same place, start hw at same time, etc.
 - Practice memory skills - games
 - Experiment with ways to get information from working memory to long term memory: mnemonics, categorizing, visualizing, using pictures
 - Tool available to support working memory?
 - Post it notes
 - Google keep
 - Calendar / planner
 - Write in textbooks and use stickies in online textbooks
 - Voice recording technology to summarize information
 - Know that sleep and exercise help memory
 - avoid multitasking.
- **Performance Task** - Imagine it is your job to teach a sixth grade class about working memory and strategies students can use to to support working memory. Create a presentation using Adobe Spark video, Animoto video, a Google presentation, or a Plotagon to to include:
 - What is memory?
 - Working memory is like... (simile)
 - Why is working memory important for school and home?
 - What are 2 things you can do to help you remember obligations?
 - What are 3 strategies to help you remember information?
 - What are 2 tools can be used to enhance memory and how do they help?
 - Upload to My Story digital portfolio with a short written reflection of what they have learned.
 - Why did your go through this process in IT class?
 - What strategies work well for you right now?
 - Did you find strategies that did not work well for you? What and why?
 - A distinguished presentation will go above and beyond expectations.

Activities:

- Memory / matching games
- Scattergories

- 5 Second Rule Jr. game
 - https://www.youtube.com/watch?v=jyTN_Gzp5DU
- Card games

Accommodation in the Classroom:

- Opportunity to orally review content before tests/quizzes
- Slashdown strategy for test taking- make students aware the test format
- Word banks for fill in the blank questions
- Prompting to follow classroom routine
- Take pictures of assignment expectation and details written on the white/Smart board
- When reading long passages, take notes in margins
- Provide post-it notes to students
- Google Keep™
- Consistent classroom routines
- Use of Learning Management (upload documents and assignments, use of calendar)

Understanding By Design – Backwards Design Process

Developed by Grant Wiggins and Jay McTighe

Resources:

- For the teacher and possibly mature students. What is Working Memory?
<https://www.youtube.com/watch?v=Nls3wxRZEoE>
- What is Working Memory - gaming examples
- <https://vimeo.com/31461996> Interesting resource although studies show that online working memory practice does not carry over (Diamond, 2012). But, this might remind students to be more conscious of utilizing working memory.

Appendices

Appendix A: Parent/Teacher and Student Questionnaire

From Executive Skills in Children and Adolescents

Second Edition

Peg Dawson and Richard Guare

FORM 2-A

Executive Skills Questionnaire for Parents/Teachers

Big problem	1
Moderate problem	2
Mild problem	3
Slight problem	4
No problem	5

Item _____ Score _____

1. Acts on impulse _____
2. Gets in trouble for talking too much in class _____
3. Says things without thinking _____
- TOTAL SCORE:** _____
4. Says, "I'll do it later" and then forgets about it _____
5. Forgets homework assignments or forgets to bring home needed materials _____
6. Loses or misplaces belongings such as coats, mittens, sports equipment, etc. _____
- TOTAL SCORE:** _____
7. Gets annoyed when homework is too hard or confusing or takes too long to finish _____
8. Has a short fuse; easily frustrated _____
9. Easily upset when things don't go as planned _____
- TOTAL SCORE:** _____
10. Difficulty paying attention; easily distracted _____
11. Runs out of steam before finishing homework or other tasks _____
12. Problems sticking with schoolwork or chores until they are done _____
- TOTAL SCORE:** _____
13. Puts off homework or chores until the last minute _____
14. Difficulty setting aside fun activities in order to start homework _____
15. Needs many reminders to start chores _____
- TOTAL SCORE:** _____
16. Trouble planning for big assignments (knowing what to do first, second, etc.?) _____
17. Difficulty setting priorities when has a lot of things to do _____
18. Becomes overwhelmed by long-term projects or big assignments _____
- TOTAL SCORE:** _____
19. Backpack and notebooks are disorganized _____
20. Desk or workspace at home or school is a mess _____
21. Trouble keeping bedroom or locker tidy _____
- TOTAL SCORE:** _____

(cont.)

From Dawson and Guare (2010). Copyright by The Guilford Press. Permission to photocopy this form is granted to purchasers of this book for personal use only (see copyright page for details).

Executive Skills Questionnaire for Parents/Teachers (page 2 of 2)

Item	Score
22. Has a hard time estimating how long it takes to do something (such as homework)?	_____
23. Often doesn't finish homework at night; rushes to get it done in school before class	_____
24. Slow getting ready for things (e.g., appointments, school, changing classes)?	_____
TOTAL SCORE:	_____
25. If the first solution to a problem doesn't work, has trouble thinking of a different one	_____
26. Resists changes in plans or routines	_____
27. Has problems with open-ended homework assignments (e.g., doesn't know what to write about when given a creative writing assignment)?	_____
TOTAL SCORE:	_____

High School Students Only

28. Lacks effective study strategies	_____
29. Doesn't check work for mistakes even when the stakes are high	_____
30. Doesn't evaluate performance and change tactics in order to increase success	_____
TOTAL SCORE:	_____
31. Can't seem to save up money for a desired object; problems delaying gratification	_____
32. Doesn't see the value in earning good grades to achieve a long-term goal	_____
33. Seems to live in the present	_____
TOTAL SCORE:	_____

KEY

Items	Executive Skill	Items	Executive Skill
1-3	Response inhibition	4-6	Working memory
7-9	Emotional control	10-12	Sustained attention
13-15	Task initiation	16-18	Planning/prioritization
19-21	Organization	22-24	Time management
25-27	Flexibility	28-30	Metacognition
31-33	Goal-directed persistence		

Child's Executive Skills Strengths

Child's Executive Skills Weaknesses

FORM 2.5

Executive Skills Questionnaire for Students

Big problem	1
Moderate problem	2
Mild problem	3
Slight problem	4
No problem	5

Item

1. I act on impulse. Score
2. I get in trouble for talking too much in class. _____
3. I say things without thinking. _____
- TOTAL SCORE:** _____
4. I say, "I'll do it later" and then forget about it. _____
5. I forget homework assignments or forget to bring home needed materials. _____
6. I lose or misplace belongings such as coats, notebooks, sports equipment, etc. _____
- TOTAL SCORE:** _____
7. I get annoyed when homework is too hard or confusing or takes too long to finish. _____
8. I have a short fuse; am easily frustrated. _____
9. I get upset easily when things don't go as planned. _____
- TOTAL SCORE:** _____
10. I have difficulty paying attention and am easily distracted. _____
11. I run out of steam before finishing my homework. _____
12. I have problems sticking with chores until they are done. _____
- TOTAL SCORE:** _____
13. I put off homework or chores until the last minute. _____
14. It's hard for me to put aside fun activities in order to start homework. _____
15. I need many reminders to start chores. _____
- TOTAL SCORE:** _____
16. I have trouble planning for big assignments (knowing what to do first, second, etc.?) _____
17. It's hard for me to set priorities when I have a lot of things to do. _____
18. I become overwhelmed by long-term projects or big assignments. _____
- TOTAL SCORE:** _____
19. My backpack and notebooks are disorganized. _____
20. My desk or workspace at home is a mess. _____
21. I have trouble keeping bedroom tidy. _____
- TOTAL SCORE:** _____

(cont.)

Copyright 2010 by Peg Dawson and Richard Guare. From Dawson and Guare (2010), *The Gifted Project*.

Executive Skills Questionnaire for Students (page 2 of 2)

Item	Score
22. I have a hard time estimating how long it takes to do something (such as homework)?	_____
23. I often don't finish homework at night and rush to get it done in school before class.	_____
24. I'm slow getting ready for things (e.g., school or appointments)?	_____

TOTAL SCORE: _____

25. If the first solution to a problem doesn't work, I have trouble thinking of a different one.	_____
26. It's hard for me to deal with changes in plans or routines.	_____
27. I have problems with open-ended homework assignments (e.g., doesn't know what to write about when given a creative writing assignment)?	_____

TOTAL SCORE: _____

High School Students Only

28. I don't have effective study strategies.	_____
29. I don't check my work for mistakes even when the stakes are high.	_____
30. I don't evaluate my performance and change tactics in order to increase success.	_____

TOTAL SCORE: _____

31. I can't seem to save up money for a desired object.	_____
32. I don't see the value in earning good grades to achieve a long-term goal.	_____
33. If I should be studying and something fun comes up, it's hard for me to make myself study.	_____

TOTAL SCORE: _____

KEY			
Items	Executive Skill	Items	Executive Skill
1-3	Response inhibition	4-6	Working memory
7-9	Emotional control	10-12	Sustained attention
13-15	Task initiation	16-18	Planning/prioritization
19-21	Organization	22-24	Time management
25-27	Flexibility	28-30	Metacognition
31-33	Goal-directed persistence		

Your Executive Skills Strengths

Your Executive Skills Weaknesses

Appendix B

Binder Organization

Name:

Date:

Do you have the folder and are your papers filed?	Possible Points	My Points	Peer or Teacher Points	Average
Planner	5			
Math	5			
English	5			
Literacy	5			
Science	5			
Social Studies	5			
Take Home and Enrichment folder?	5			
	35 Possible Points			Total:

Have you avoided “stuffing” all your papers into you planner and/or take home folder?

Commendations (good points):

Suggestions:

Appendix C

Goal Setting - Flipgrid



Cycle 1: A Day

Set a goal for the cycle. Think about academic goals as well as personal goals.

Make sure the goal is a SMART goal. Is it **Specific**, **Measurable**, **Achievable** in one week, **Relevant** (important for you) and **Time Based**. Will you be able to meet this goal in one cycle?

Go to Flipgrid.com and answer the following questions. [Flipgrid link.](https://flipgrid.com/e77caf8d)
<https://flipgrid.com/e77caf8d>

Once you've answered the questions, be sure to submit.

- 1) What is your SMART goal?
- 2) How is your goal Specific?
- 3) How is your goal measurable?
- 4) Do you think your goal is achievable?
- 5) How is your goal relevant?
- 6) is is time based? Will you be able to meet this goal in one cycle?

Cycle 2: A Day

Now it's time to reflect on your goal.

First, Go back to Flipgrid and watch last cycle's video.

Now go to the next Flipgrid to reflect on your goal. [New Flipgrid
https://flipgrid.com/d3dafa96](https://flipgrid.com/d3dafa96)

- ☐ Responses should be focused on the following questions, but feel free to add anything else you feel is important.
- ☐ Be sure your responses are
 - ☐ Organized
 - ☐ Show Thought

If you met your goal?

- 1) What was your goal?
- 1) When did you meet your goal?
- 3) How has meeting your goal affected you?
- 4) Did anyone help you meet your goal? (parent, friend, teacher, etc)
- 5) What is your next step?

If you did not meet your goal?

- 1) What was your goal?
- 2) How close were you to meeting your goal?
- 3) What interfered with your ability to meet your goal?
- 4) Can you think of anyone who could have helped you meet your goal?
- 5) What is your next step? Are you going to continue with this goal or adjust the goal?



April 7, 2019



Goal Setting

What is your goal for the week?

Rubric:

- 1) What is your SMART goal?
- 2) How is your goal Specific?
- 3) How is your goal measurable?
- 4) Do you think your goal is achievable?
- 5) How is your goal relevant?
- 6) Is it time based? Will you be able to meet this goal in one cycle?



[Back to IT](#)

Goal Reflection

Apr 7

Goal Reflection

Responses should be focused on the guiding questions I gave you, but feel free to add anything else you feel is important.

Be sure your responses are **organized** and **show thought**.



Appendix D



Appendix E

Name: _____

Time Activity	Estimated Time	Actual Time	How close were you?
Walk one lap around the school (by the gym)			Pretty darn close! Took longer than I thought. Was quicker than I thought.
Go up and down the staircase 3 times.			Pretty darn close! Took longer than I thought. Was quicker than I thought.
Complete 1 basic math problem			Pretty darn close! Took longer than I thought. Was quicker than I thought.
Complete 5 basic math problems			Pretty darn close! Took longer than I thought. Was quicker than I thought.
Organize Google Drive			Pretty darn close! Took longer than I thought. Was quicker than I thought.
Follow the following directions: 1. Get out planner 2. Jot “today is going to be a great day” in planner 3. File the given papers.			Pretty darn close! Took longer than I thought. Was quicker than I thought.

Appendix F: Ready/Do/Done

Get Ready	Do	Done
		Get Done:

Appendix G: Preferred / Non-preferred Tasks

How do you rank particular tasks?

1. Math Homework

Mark only one oval.

	1	2	3	4	5	
Totally Non-Preferred	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Definitely Preferred

2. Get More Math application

Mark only one oval.

	1	2	3	4	5	
Totally Non-Preferred	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Definitely Preferred

3. Open Ended Writing Assignments

Mark only one oval.

	1	2	3	4	5	
Totally Non-Preferred	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Definitely Preferred

4. Creative Writing

Mark only one oval.

	1	2	3	4	5	
Totally Non-Preferred	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Definitely Preferred

5. English Worksheets

Mark only one oval.

	1	2	3	4	5	
Totally Non-Preferred	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Definitely Preferred

6. SS guided Reading

Mark only one oval.

	1	2	3	4	5	
Totally Non-Preferred	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Definitely Preferred

7. Science Labs

Mark only one oval.

	1	2	3	4	5	
Totally Non-Preferred	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Definitely Preferred

8. Note Taking from Videos

Mark only one oval.

	1	2	3	4	5	
Totally Non-Preferred	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Definitely Preferred

9. Watching Teacher Made Videos (flipped learning)

Mark only one oval.

	1	2	3	4	5	
Totally Non-Preferred	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Definitely Preferred

10. Studying Independently

Mark only one oval.

	1	2	3	4	5	
Totally Non-Preferred	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Definitely Preferred

11. Studying with a Friend or Parent

Mark only one oval.

	1	2	3	4	5	
Totally Non-Preferred	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Definitely Preferred

Powered by



Appendix H: Preferred / Non-Preferred Task Discussion

Preferred vs Non-Preferred Task

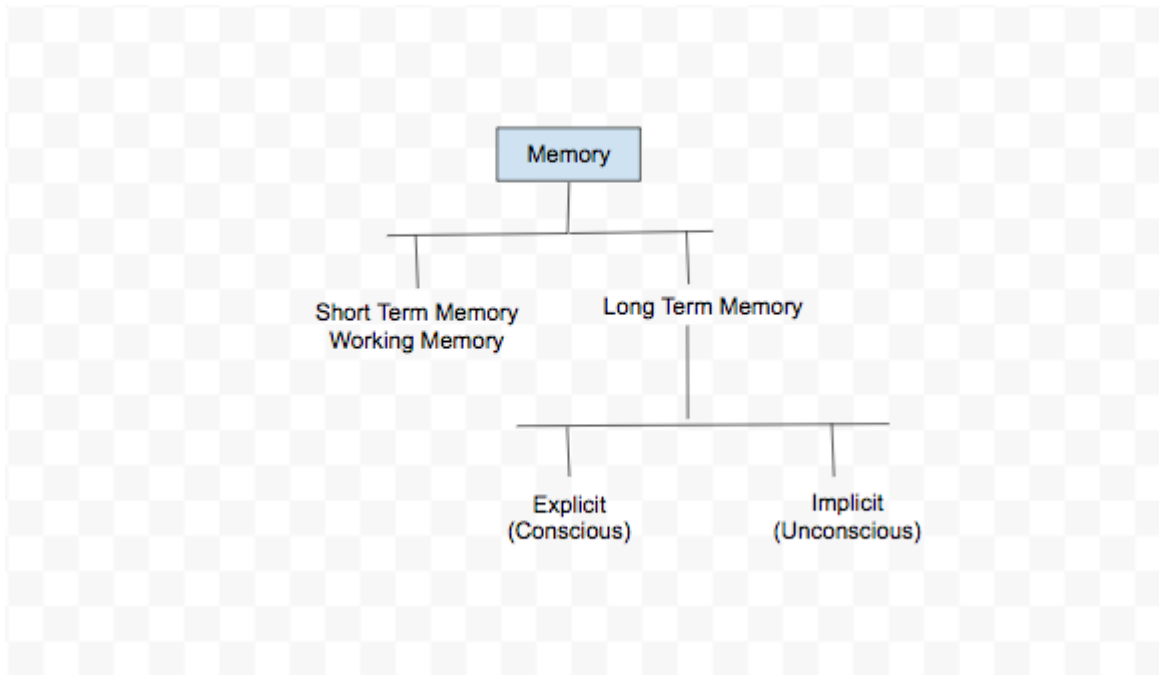
Students will work with a partner to discuss the following questions.

- What are your most preferred school tasks?
- Why do you think that is?
- What are your least preferred tasks?
- Why do you think that is?
- What are 2 strategies to avoid procrastination?
- Are you more motivated by intrinsic or extrinsic rewards?

Each partner will share his/her partner's responses to the large group. Students will be scored on:

- ☐ Sharing response to question 1
- ☐ Sharing response to question 2
- ☐ Sharing response to question 3
- ☐ Sharing response to question 4
- ☐ Sharing response to question 5
- ☐ Student presented the information in a serious, respectful tone.
- ☐ Student uses learned vocabulary (procrastination, preferred, intrinsic, etc)

Appendix I: Memory



References

- About ADHD - overview. (n.d.). Retrieved April 29, 2019, from CHADD- Children and adults with attention - deficit/hyperactivity disorder website:
<https://chadd.org/about-adhd/overview>
- Arzi, H. J., Ben-Zvi, R., & Ganiel, U. (1985). Proactive and retroactive facilitation of long-term retention of curriculum continuity. *American Education Research Association*, 22(3), 369-388. Retrieved from <https://jstor.org/stable/1162969>
- Attention-deficit/hyperactivity disorder (ADHD) in children. (n.d.). Retrieved April 18, 2019, from <https://www.mayoclinic.org/diseases-conditions/adhd/symptoms-causes/syc-20350889>
- Barkley, R. (2015, August 5). ADHD: Nature, course, outcomes, and comorbidity [Lecture notes]. Retrieved December 9, 2018, from ContinuingEdCourses.net website:
<http://www.continuingcourses.net/active/courses/course082.php>
- Barkley, R., Dr. (2010, November 10). ADD and executive function - Russell Barkley [Video file]. Retrieved from <https://www.youtube.com/watch?v=GR1IZJXc6d8>
- Barkley, R. A., & Murphy, K. R. (2010). Impairment in occupational functioning and adult ADHD: The predictive utility of executive function (EF) ratings versus EF tests. *Archives of Clinical Neuropsychology*, 25(3), 157-173. <https://doi.org/10.1093/arclin/acq014>
- Brown, T. E. (2006). Executive functions and attention deficit hyperactivity disorder: Implications of two conflicting views. *International Journal of Disability, Development and Education*, 53(1), 35-46. <https://doi.org/10.1080/10349120500510024>

Brown, T. E., Reichel, P. C., & Quinlan, D. M. (2011). Executive function impairments in high IQ children and adolescents with ADHD. *Journal of Psychiatry*, 1, 56-65. Retrieved from <http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.1018.9763&rep=rep1&type=pdf>

Brown, T. E., PHD. (2008, February). Executive: Describing six aspects of a complex syndrome. Attention, 12-17. Retrieved from https://chadd.org/wp-content/uploads/2018/06/ATTN_02_08_Executive_Functions_by_Thomas_Brown.pdf

Child Mind Institute. (2010, November 10). ADHD and executive function - Dr. Russell Barkley [Video file]. Retrieved from <https://www.youtube.com/watch?v=GR1IZJXc6d8>

Childre, A., & Sands, J. R. (2015). Backward design. *Council for Exceptional Children*, 41(5), 6-14. Retrieved from <https://www.cec.sped.org/~media/Files/Policy/IDEA/IDEA40/TEACHING%20Exceptional%20Children2009Childre614.pdf>

Lit Review 3

Dawson, P., & Guare, R. (2017). *The Guilford Practical Intervention in the Schools Series: Executive skills in children and adolescents: A practical guide to assessment and intervention* (2nd ed.). NY, NY: Guilford Press.

Designing a course [Fact sheet]. (2009). Retrieved November 3, 2018, from The Teaching Center: Washington University St Louis website: <https://teachingcenter.wustl.edu/resources/course-design/designing-a-course/>

Diamond, A. (2013). Executive functions. *Annual Review of Psychology*, 64(1), 135-168.

Retrieved from <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4084861/>

Diamond, E. (2012). Activities and programs that improve children's executive functions.

Current Directions in Psychological Science, 21(5), 335-341. Retrieved from

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4200392/>

Executive function and self regulation. (2018). Retrieved November 5, 2018, from Center for Developing Child: Harvard University website:

<https://developingchild.harvard.edu/science/key-concepts/executive-function/>

Jacobson, L. A., Williford, A. P., & Pianta, R. C. (2011). The role of executive function in children's competent adjustment to middle school. *Child Neuropsychology*, 17(3),

255-280. Retrieved from <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4075458/>

Joseph, L. (2009). Study skills organizers: Ready-to-use materials for the classroom. Prides Crossing, MA: Landmark School.

Loomis, B. (2001). Guide to curriculum development: Turning points, transforming middle schools. Retrieved from <https://files.eric.ed.gov/fulltext/ED509803.pdf>

McTighe, J., & Thomas, R. S. (2003). Backward design for forward action. *Educational Leadership*, 60(5), 52-55. Retrieved from

<http://edml260.pbworks.com/f/Backward+Design+for+Forward+Action+.pdf>

Melby-Lervåg, M., Redick, T., & Humle, C. (2016). Working memory training does not improve performance on measures of intelligence or other measures of "Far transfer": Evidence from a meta-analytic review. *Perspect Psychology Science*, 4, 512-534.

<https://doi.org/10.1177/1745691616635612>

- Meltzer, L. (2013). Executive Function and Metacognition in Students with Learning Disabilities: New Approaches to Assessment and Intervention. *International Journal for Research in Learning Disabilities*, 1(2), 31-63.
- Meltzer, L., Pollica, L. S., & Barzillai, M. (2007). Executive function in the classroom. L. Meltzer (Ed.), *Executive function in education: From theory to practice* (pp. 165-187). New York, NY: Guilford Press.
- Models of curriculum design. (n.d.). Retrieved November 3, 2018, from Evaeducation: Education Website website:
https://evaeducation.weebly.com/uploads/1/9/6/9/19692577/unit__4.pdf
- Newhall, P. (2008). *Study skills: Research-based teaching strategies*. Prides Crossing, MA: Landmark School.
- Rush neurobehavioral centers (Ed.). (2016). *Executive functions: A blueprint for success guide* (Middle Level ed., Vol. 2). Skokie, IL: Premier.
- Standards Aligned System. (2018). Retrieved October 14, 2018, from SAS website:
<https://www.pdesas.org/Standard/View>
- St Clair-Thompson, H. L., & Gathercole, S. E. (2006). Executive functions and achievements in school: Shifting, updating, inhibition, and working memory. *The Quarterly Journal of Experimental Psychology*, 59(4). <https://doi.org/10.1080/17470210500162854>
- Strategies for supporting executive functions with Sarah Ward [Show #53]. (2017, November 5). *School Psyched Podcast*. Podcast retrieved from
https://www.youtube.com/watch?v=UXXYy3_wpxw&t=2s

- The Understood Team (Ed.). (n.d.). Understanding executive functioning issues. Retrieved December 9, 2018, from Understood: For learning and attention issues website:
<https://www.understood.org/en/learning-attention-issues/child-learning-disabilities/executive-functioning-issues/understanding-executive-functioning-issues>
- Waston, S., Gable, R. A., & Morin, L. L. (2016). The role of executive functions in classroom instruction of students with learning disabilities. *International Journal of School and Cognitive Psychology*, 3(167). Retrieved from
<https://www.omicsonline.org/open-access/the-role-of-executive-functions-in-classroom-instruction-of-studentwith-learning-disabilities-2469-9837-1000167.pdf>
- Wiggins, G., & McTighe, J. (2005). What is backward design [Chapter 1]. In J. McTighe & G. Wiggins (Authors), *Understanding by design* (pp. 13-34) [PDF e-book]. Retrieved from
<https://educationaltechnology.net/wp-content/uploads/2016/01/backward-design.pdf>

Curriculum Vitae



**Elizabeth
Nanis**

bnanis@ucfsd.net

bnanis@aol.com

<https://twitter.com/bethnanis>

SUMMARY

I have been lucky enough to find my passion in teaching middle school. And, I'm lucky enough to be employed by a district where teachers are trusted, respected and encouraged to expand their craft and take risks.

EXPERIENCE

Special Education Teacher

CF Patton Middle School
760 Unionville Road
Kennett Square PA — 1988-Present

Over the course of my career at CF Patton Middle School I have taught 6th through 8th grade. I am highly qualified in the disciplines of English, reading and math. Presently I teach 6th grade learning support working with learning disabled, physically disabled, autistic and emotional support students. I teach a itinerant support class, English, math and literacy.

Accomplishments

- yearbook advisor
- Involved in teaming through integrated curriculum
- involved in a pilot program using a learning management system
- technology integration committee
- social committee chairperson
- math committee
- team leader
- special education department head
- numerous presentations at state and national Pennsylvania Middle Level Education conferences

Special Education Teacher

Radnor High School 1987-1988

At Radnor High School I supported special education students in their content area classes. I worked as the liaison between the special education department and the regular educators.

Accomplishments

- institute a workshop educating parents about colleges with learning support programs

EDUCATION

University of the Arts

MEd - Pending (May 2019)
Masters of Arts in Education
Educational Technology: GPA: 4.0

Temple University

MEd — 2008-2012
Master of Science in Education
Curriculum and Instruction in Education: GPA: 4.0

West Chester University

BS in Education - December 1987
Bachelor Degree in Special Education
Magna Cum Laude

SKILLS

- highly qualified in middle school math
- highly qualified in middle school reading
- highly qualified in middle school English
- assistive technology